The JOURNAL *of the Oklahoma State Medical Association*

EDITORIAL BOARD

Ben H. Nicholson, M.D., Oklahoma City, Editor-in-Chief; **E. Eugene Rice, M.D.,** Shawnee; **John G. Matt, M.D.,** Tulsa; **Dick Graham,** Oklahoma City, Business Manager, **Don Blair,** Oklahoma City, Associate Business Manager, **Bennye Cason,** Editorial Assistant. Associate Board: **Howard A. Bennett, M.D., Harrell C. Dodson, M.D., Thomas H. Haight, M.D., James F. Hammarsten, M.D., John E. McDonald, M.D.,** and **Wm. J. Osher, M.D.**

CONTRIBUTIONS

Articles accepted by this *Journal* for publication including those read at the annual meetings of the State Association are the sole property of this *Journal*.

The Editorial Department is not responsible for the opinions expressed in the original articles of contributors.

MANUSCRIPTS

Manuscripts may be withdrawn by authors for publication elsewhere only upon the approval of the Editorial Board.

Manuscripts should be typewritten, double-spaced, on white paper 8½ x 11 inches. The original copy and one carbon copy should be submitted.

Footnotes, bibliographies and legends for illustrations should be typed on separate sheets in double space. Bibliography listings should follow this order: Name of author, title of article, name of periodical with volume, page and date of publication.

Manuscripts are accepted subject to the usual editorial revisions and with the understanding that they have not been published elsewhere.

NEWS

Local news of interest to the medical profession, changes of address, births, deaths and weddings will be gratefully received.

ADVERTISING

Advertising of articles, drugs or compounds unapproved by the Council on Pharmacy of the A.M.A. will not be accepted. Advertising rates will be supplied on application. It is suggested that members of the State Association patronize our advertisers in preference to others.

REPRINTS

Reprints of original articles will be supplied at actual cost provided request for them is attached to manuscripts or made in sufficient time before publication. Checks for reprints should be made payable to The Transcript Company, Norman, Oklahoma.

Volume 50 **Number 9** September 1957

CONTENTS

EDITORIALS

Concerning Medical Care of People Receiving Old Age Assistance 417

A. S. Risser, M.D. 418

Influenza 419

Policy on Vaccination 421

SCIENTIFIC ARTICLES

Evaluation of the Present Use of Cesarean Section, *Robert A. Cosgrove, M.D., F.A.C.S.* 425

The Porphyrias, *William R. Paschal, M.D.* 430

Stop Rheumatic Fever, Second in a Series, *Thomas H. Haight, M.D.* 435

SPECIAL ARTICLES

University of Oklahoma Speech and Hearing Clinic, Developmental History, *John W. Keys, Ph.D.* 438

Pressure Groups in Health, *W. R. Bethel* . 443

ASSOCIATION ACTIVITIES

President's Letter 456

O.U. Medical School Receives $135,403 . . 457

Voluntary Health Insurance Coverage Reaches New High 457

'Weight-Reducing' Medicines Under Congressional Attack 458

Dr. West, Dr. Turner Present At Groundbreaking Ceremonies 459

Doctor Draft Law Expires; New Legislation Provided For Specialists' Services . . 460

Gains in Longevity Since 1900 461

Oklahoma City Clinical Society Schedules 27th Annual Meeting 462

A.M.A. Suggested Guides To Relationships Between Medical Societies and Voluntary Health Agencies 463

Sears-Roebuck Plan Blocked by Internal Revenue Service 467

Have You Heard? 467

Film Guide For Program Chairmen . . . 471

Coming Meetings 478

Dr. Idstrom To Be Speaker For X-Ray Technicians Meeting 479

Classified Ads xv, Index to Advertisers lxi

THE JOURNAL is the official publication of the Oklahoma State Medical Association, and is published monthly under the direction of the Council, 601 N.W. Expressway, P.O. Box 9696, Shartel Station, Oklahoma City, Oklahoma. Publication office (printer): 111 South Peters Ave., Norman, Oklahoma. Send all change of address notices to P.O. Box 9696, Shartel Station, Oklahoma City, Oklahoma. Subscription to **THE JOURNAL** is included in membership fees. Other subscriptions are $5.50 per year or $1.00 per copy with each request subject to approval of the Editorial Board. Entered as second-class mail at the post office at Norman, Oklahoma, under the Act of Congress of March 3, 1879. Copyright, 1957, by the Oklahoma State Medical Association.

UNIVERSITY OF MICHIGAN LIBRARIES

New

NEO-SYNEPHRINE® COMPOUND

Cold Tablets

offer "Syndromatic" Control in the COMMON COLD, Allergic Rhinitis

Patients breathe, sleep, work and play better with new "syndromatic" action.

Neo-Synephrine Compound Cold Tablets... for... Full "Syndromatic" Relief.

Neo-Synephrine (brand of phenylephrine) and Thenfadil (brand of thenyldiamine), trademarks reg. U.S. Pat. Off.

Editorials

Concerning Medical Care of People Receiving Old Age Assistance

The administrative agency made to order for the purpose is Blue Cross and Blue Shield. I hope the Welfare Department can be persuaded of this. Perhaps the following categorically stated reasons will help.

1. These organizations are neither medical, political nor profit making. Their trustees are physicians, businessmen and hospital people, who have no interest except to help people in groups pool their resources for each other's medical and hospital care when needed. Accumulated reserves are held to pay for unusual numbers of hospitalizations, to increase and to extend benefits, and to fluctuate hospital and medical payments with changing costs. Their record of fairness has earned them the respect of all with whom they deal. Their executive director is a fine fair-minded gentleman of extraordinary administrative ability.

2. Such an organization can effectively remove the stigma of socialization from the present program by acting as a buffer between all parties concerned. Irritations and misunderstandings on both sides can be avoided. The plan for the aged would be removed from the political arena.

3. If the Blue Cross and Blue Shield were asked to write a plan with as complete coverage as possible for the amount available per person per month, the State and the Welfare Department would no longer be uncle. The amount available in days and service for the year would be a savings. The recipient should want to conserve this against future needs and not exhaust it by unnesessarily prolonging his treatment or hospital stay.

4. If the Welfare Department administers the program, in the minds of the doctors and the hospitals, these people will be considered Welfare Department patients. The desire of all to fix things so that they can pay their own way will be lost. If on the other hand, in response to the doctor's question "Can you manage your hospital bill?" they can reply, "We have Blue Shield and Blue Cross," they would be in the same category as anyone else who could reply in the same way. Woudn't this be far better than the reply, "The Welfare Department will pay the bill"?

5. From our point of view, the advantages to be gained by avoiding the stigma of socialization would far outweigh the additional cost. From the standpoint of the Welfare Department, I am confident that future negotiations for other coverages would be entered into on merits alone. The onus of political medicine and socialized medicine would be removed.

6. One word about the nature of Blue Cross with which I am more familiar. There are those who insist that because they believe in private enterprise such an organization on a non-profit basis has no right to exist. They seem unaware of the fact that the enterprise is hospitalization — not insurance. To be sure, hospitalization insurance becomes private enterprise where the total cost of hospitalization is increased by whatever amount the insurance company puts in its pocket. Blue Shield and Blue Cross have operating expenses of 7% or less. All the rest of the monies taken in are held in reserve for future use or paid out for medical or hospital care. The enterprise of these plans is to pay hospital bills and doctors bills for people who have pooled a small amount of their income for that purpose; it is not to make money. The cost of medical and hospital care is high enough now — why add to it the support of hundreds of insurance companies?

Our committee in all good faith and after many hours of work has presented a program to Mr. Rader which he and his commission has approved in its essentials. In order to see that the funds are conserved and used where they are most needed, the modifying phrase "life in danger" is used. This means that hospitalization and medical care is ap-

UNIVERSITY OF MICHIGAN LIBRARIES

proved only for the recipient whose life is in danger. "Life in danger" is open to many, many interpretations and will compound the false thinking we already do to favor the patient over the insurance carrier. But what is far worse for our intermedical relationship, it puts the hospital in the position of having to decide whether the doctor knows what he is talking about when he says the patient's life is in danger. No program built on such a nebulous base can be sound. This one must be if we are to build a structure that will also support future programs which will be needed and which must come. I believe that Blue Cross and Blue Shield can write a program that will be actuarily sound and in which theirs will be the only watch dog necessary.

We have all worried lest Blue Cross and Blue Shield get so big nationally that we would lose any vestige of local control and that the tail would in reality wag the dog. If Mr. Rader and our Welfare Department could work out a sound program for welfare recipients with Blue Cross and Blue Shield—a program so well conceived and developed (and I think Mr. Helland can do it) that it would serve as a model — two great ghosts would be laid to rest. Blue Cross and Blue Shield would be contained locally and the great specter of nationalization of what social medicine is necessary would not appear. Mr. Rader's interest in the medical profession makes him the ideal commissioner to implement a program which retains what is best in medicine as we know it and apply it to that group of people whose reach it is beyond. Through him a wonderful opportunity exists for setting a pattern of limited but necessary socialization that will endure without endangering the best in our system.—B.H.N.

A. S. Risser, M.D.

For fifty-two years Arthur Risser served the people and the profession of Oklahoma well. He was a stalwart, stable, dependable and predictable man whose Christian costume became him and was not taken off and put on as the occasion suited. One had a feeling that there was nothing else he could wear—that there was nothing he or anyone else could do about it.

Coming to Oklahoma from Kansas where he had worked with Doctor Hertzler, he settled in Blackwell in 1905. Here he worked and grew in stature as the community developed. He served as president of the Oklahoma State Medical Association 1926-27 and later was our representative on the House of Delegates of the American Medical Association. The community effort of which he seemed proudest, however, was his part in the development of the Blue Cross Plan. He served as President of the Board of Trustees from its inception in 1940 until his death. In this capacity his stable character and steadfastness of purpose served the plan and the people it protected well. Oklahoma medicine needs many more men like Arthur Risser.—B.H.N.

Cycloplegia and the Optometrist

A question of malpractice for the M.D.

It has been brought to our attention that occasionally practicing physicians have been asked to administer cycloplegic medicine for optometrists so that the optometrist may then refract (fit glasses) to children and complicated refraction cases. It is also noted that certain M.D.'s do not know that optometrists are not medically trained and not legally allowed to use or prescribe medicine in any form. They are not doctors of medicine and only use the title of doctor because of state legislative action.

Although this has happened in only a few isolated instances, the dangers involved are considreable.

Optometrists are not trained to the degree that they can judge the type of case needing cycloplegia and the great majority of them realize this and do not compromise a friendly physician in this way.

From *Maine Medical Journal*, February, 1957.

Guest Editorials

Influenza

L. VERNON SCOTT, Sc.D.
Associate Professor of Microbiology
University of Oklahoma School of Medicine

The occurrence of an epidemic of influenza in Asia during the Spring and Summer months of 1957 became of great concern to the Respiratory Disease Unit of the U. S. Public Health Service working in cooperation with the World Health Organization. With rapid transportation, increased world trade, and a traveling world population the possibility of a pandemic became a probability. All laboratories which had been designated as cooperating laboratories were advised to keep a close watch for sporadic cases of this disease throughout the world. Work was immediately undertaken to isolate and study the nature of this virus. A strain of influenza virus was isolated in Singapore[1] in early spring of 1957. Identification of this virus was difficult, but studies have shown it to be a member of the "A" immunological type of influenza viruses.

Up to the present time there have been four main immunological groups of influenza viruses studied Groups A, B, C D.[2,3] Each group is comprised of a completely distinct set or family of viruses. The variation in antigenicity among these viruses has been clearly demonstrated in vaccine studies and still remains a basic problem in the development of an effective control of the disease by immunization. Groups A and B have been known for quite some time and have been the subject of much study. Illnesses caused by strains of influenza, groups C and D, are seldom recognized and the nature of these two groups is not as well understood. Members of groups A and B produce the same diseases. However, the disease produced by strains of group B is, in general, of a milder type than that of the A group. The epidemic periodicity of group A is two to three years while that of group B is four to six years.

Since the beginning of laboratory study of the influenza viruses, four serologically different but related sets or families of group A influenza virus have been studied. These may be referred to as the Swine, PR8, FM1 and Asian families and strains within each family have been successively responsible for outbreaks of influenza for the past 30 years or longer. By serological evidence influenza viruses closely related to the Swine virus were probably responsible for the pandemic of 1917-1919 and remained prevalent throughout the world for a period of 10 years and then disappeared.[4] The first time an influenza virus was isolated from man was in 1933 and this virus was shown to be distantly related to the Swine virus. This new family has been called PR8 and this strain is the prototype. Studies on the nature of these viruses involving antigenic analysis of strains, protective effect of vaccines and epidemiological studies have shown that the group A influenza viruses prevalent for 10 years after the isolation of PR8 virus were members of this family. In 1946-47, the FM1 family commonly known as the A-prime virus appeared as the etiologic agent of influenza in the world and completely replaced the earlier families as the prevalent group A virus. During the past 10 years strains of this FM1 family have been isolated and studied throughout the world. The emergence of a new group or family has been anticipated and early studies strongly indicate that this Asiatic strain has evolved as the fourth family and this will probably replace the existing family, FM1, as the prevalent cause of influenza type A disease. Studies have been underway for the past few years in order to detect, as soon as possible, a modification of antigenic structure among strains of influenza viruses. Studies on viruses isolated in early 1956 from widely separated areas of the Northern Hemisphere showed that the isolates differed sharply from previous isolated strains. However, it wasn't until this new virus was isolated that a clear distinction was noted. The antigenic differences in the strains are detected with the use of the hemagglutina-

UNIVERSITY OF MICHIGAN LIBRARIES

tion inhibition test and relationships of the families in the group A are demonstrated by the complement fixation test. However, it cannot be stated that it is a new family until this virus has been thoroughly and adequately studied. It may be just another strain of the PR8A or FM1 A-prime families. At the present time the designation Far East strain is the preferred title for this virus.

Since the isolation of the new strain of virus, epidemics have been studied in nearly all of the countries of the Near and Far East, including Korea, Japan, Australia and many islands of the East Indies Group. It has been found in several countries of Europe, in the Sudan of Africa, and in Chile in South America. The first outbreak noted in the United States was during May in California from personnel aboard ship. Later it was found in human beings in coastal areas both East and West who were returning to the United States from epidemic areas, particularly from the Orient. In late June and early July there was a sharp outbreak among students and adult leaders in Grinnell, Iowa. From that meeting the virus has spread to several localities. The United States Public Health Service has watched with interest all large meetings where delegates came from various sections of the United States as well as outside to follow the possible spread of the virus while the meetings were in progress as well as subsequent outbreaks of the disease in local communities upon return of the delegates. Several cases of the disease occurred following the Boy Scout Jamboree in Valley Forge, Pennsylvania. By August, 1957, the virus had been isolated from cases of the disease in several states in this country. There had not been a laboratory diagnosis of influenza in Oklahoma due to this Far East virus by that time. However, this does not mean that there have not been cases. The last virus isolated in Oklahoma was a strain of group B.[5]

How does this virus differ from the influenza viruses which have been studied previously? The disease produced by this virus is that of typical influenza with involvement of the respiratory system. There is no involvement of the gastro-intestinal tract with this disease. The attacks of the disease caused by the Far East virus that have been studied have not been severe and the deaths are attributed primarily to secondary bacterial infections. It has been shown that the usual laboratory animals (chick embryo, mouse, ferret) and tissue culture are susceptible and that this virus reacts similarily to the rest of the influenza viruses. It differs from other influenza viruses in that antiserums produced against former strains will not neutralize this virus. Animals inoculated with vaccines which do not contain this strain are not protected against future challenge with the Far East virus.

It is difficult to diagnose a sporadic case of influenza without the aid of the laboratory. However, the epidemic pattern of the disease aids in the diagnosis. In the laboratory specimens of throat gargles or nasal washings from patients can be inoculated into embryonated hens eggs for the possible isolations of the virus. These specimens must be obtained during the first 48 hours of the disease, treated with antibiotics to free the specimen of bacteria and inoculated directly into the chick embryo or kept frozen at -70° C until isolation technics can be done. The isolated virus must be identified and this is usually done with serological procedures. If isolation technics do not yield a virus serological tests can be performed on acute and convalescent serum specimens to detect the response of the host to this disease producing agent.[6]

Vaccines are being prepared for use as a prophylactic measure against this disease. Six biological houses working on round-the-clock shifts have produced a trial vaccine that is being tested for potency at the present time. It is hoped that by mid-September eight million doses will have been produced, half of which will go to the Armed Forces. By February 1, 1958, it is anticipated that sixty million doses will be available. At the present time a monovalent vaccine instead of the usual polyvalent one is being considered which will include only the Far East strain. This is being considered to expedite vaccine production but the polyvalent preparation including the existing strains remains the preferred one. If the virus does not

mutate and the epidemic which this community experiences is caused by the Far East strain the monovalent vaccine should protect the susceptible population.

Epidemics of influenza are seen rarely during hot weather, however an epidemic can be expected when cool weather comes. If this strain from a new family of influenza is prevalent and attacks the susceptible population of this country, many epidemics or even a pandemic can be expected unless the vaccines are available and effective. Antibiotics have no effect on the proliferation of this virus. Attention should be called to the fact that there has been a sharp increase in the incidence in the number of cases of streptococcal infections in Oklahoma during the past year.[7] This bacterium is one of the agents responsible for secondary infections following an attack of influenza.

REFERENCES

1. Meyer, H. M., Hilleman, M. R., Miesse, M. L., Crawford, I. P., and Bankhead, A. S.: New Antigenic Variant in Far East Influenza Epidemic, 1957, Proc. Soc. Exper. Biol. and Med., *95:* 609-616, 1957.
2. Jensen, K. E.: A New Set of Type A Influenza Viruses, in press, J. Amer. Med. Assoc.
3. Jensen, K. E.: The Nature of Serological Relationships Among Influenza Viruses, Advances in Virus Research, *4:* 279-318, 1957.
4. Shope, R. E.: Incidence of Neutralizing Antibodies for Swine Influenza Viruses in Sera of Human Beings of Different Ages, J. Exper. Med., *63:* 669-684, 1936.
5. Scott, L. V.: Influenza in Oklahoma, 1955, J. Oklahoma M. A., *48:* 416-418, 1955.
6. Jensen, K. E.: Chapter on Influenza in "Diagnostic Procedures for Virus and Rickettsial Diseases," pp. 241-262, Published by American Public Health Association, New York City, 1956.
7. Reportable Diseases in Oklahoma Health Bulletin, *15*, 1957.

Policy on Vaccination

The following is a Proposed Program of Action to Combat Possible Outbreak of Oriental Influenza in the United States sent to the Board of Trustees of the A.M.A.

As to the question of vaccination, the Board of Trustees of the American Medical Association voted to cooperate with the United States Public Health Service in providing the public with information as to the need of vaccination against Asiatic influenza, provided the vaccine is safe and effective and there is a need for widespread immunization.

Following the action of the Board, a group of Trustees met with the Secretary of Health, Education and Welfare and the Surgeon General of the U.S.P.H.S. and approved the following statement for publication:

7/22/57 Surgeon General, PHS

"The Public Health Service, in cooperation with the medical profession, will stimulate and promote a nationwide voluntary program of vaccination against the prevalent strain of influenza. It will not, however, request Federal funds for the purchase or administration of vaccine—except for its own legal beneficiaries. The State and Territorial health officers and the American Medical Association have jointly assured the Surgeon General that community resources, both public and private, will be mobilized to provide vaccinations for persons who are unable to pay for such protection."

Introduction

Reports indicate an epidemic of influenza began in Hong Kong and Singapore in April 1957. Then, in rapid succesion, almost simultaneous epidemics occurred in Taiwan, the Philippines, the Malayan States, Indonesia, Japan and India. There have been some reports of cases among U. S. military personnel in the Far East. A number of sharp outbreaks also have been reported aboard commercial and U.S. Naval vessels.

The disease is characterized by rapid onset, fever, malaise, muscle aches, coryza of three to five days' duration. In general, the attack rate seems to be about 15 to 20 per cent of the population in the affected countries. Mortality rates have been low.

Early in June, the Surgeon General of the U. S. Public Health Service called a series of meetings at which representatives of the medical and public health professions were invited to give advice with respect to preliminary plans for dealing with the influenza epidemics should it become widespread in the United States. On June 26, representatives of the American Medical Association met with the Surgeon General to discuss the question of medical manpower demands and other precautionary measures in the event that an epidemic should occur.

The Executive Committee of the Board of Trustees promptly pledged the support and cooperation of the American Medical Association. It requested that a program of action be prepared and submitted to the Board of Trustees for study and appropriate action.

Subsequently, a meeting was held, July

UNIVERSITY OF MICHIGAN LIBRARIES

9, 1957, at A.M.A. headquarters in Chicago to discuss a program of action and to draft recommendations for presentation to the Board. Dr. Harold C. Lueth presided over the meeting which was attended by Dr. William H. Stewart of the Public Health Service and Dr. Madison D. Brown of the American Hospital Association. A.M.A. representatives included Dr. George F. Lull, Dr. Austin Smith, Dr. Edward Pinckney, Mr. Leo Brown, Mr. John Bach, Mr. Tom Hendricks and Mr. Frank W. Barton.

Summary of Data Reviewed and Factors Considered

The current status of the influenza epidemic has been discussed in an editorial entitled "Oriental Influenza Epidemic" *JAMA* 164:974, June 29, 1957; Public Health News release, *JAMA* 164:1136-7, July 6, 1957, and in a news release of the Public Health Service of June 10, 1957.

Through the Public Health Service and the World Health Organization, reports of the disease, worldwide, are received daily. Regular weekly reports, morbidity and mortality, reflect the current situation. There are several reports of influenza occurring in military bases in the Continental U. S. Also, some reports of influenza epidemics have been suggested in civilian communities. However, they have not been substantiated by virus identification.

A brief summary of the influenza epidemic characteristics includes:

(a) Ineffective agent—virus Japan 507 of 1957

(b) Incubation period—probably 1-2 days

(c) Incidence—variable, figures not entirely reliable—15-20 per cent

(d) Contagious period — uncertain, 1-5 days

(e) Transmission—droplet infection

(f) Symptoms—fever, prostration, headache, lassitude

(g) Signs—coryza

(h) Course—generally short duration, 3-5 days

(i) Complications—rate, not serious except in the very young, old or those debilitated

(j) Treatment—no specific therapy, usually symptomatic; antibiotics of little value; good nursing care

(k) Mortality—figures unreliable, probably quite low except in the young, old or those debilitated.

There are inherent problems in attempts to draw conclusions from the influenza epidemics of the Far East and its appearance in the Continental United States. In the Far East where overcrowding, malnutrition, insufficient sanitation and presence of other human diseases are prevalent, the situation differs from that in the United States. The appearance of the disease among United States military personnel cannot be used, without modification, in forecasting probable effects among civilian communities and personnel as factors such as earlier immunization of military personnel with influenza vaccine, strict military control, regular sick calls, ready availability of medical and hospital care have their influence on the disease. Experiences in the Far East among military and civilian personnel are, however, the only guides that are currently available.

Consideration must be given to the medical, economic, and political impact of any epidemic that appears suddenly and attacks 15-20 per cent of the population. The A.M.A. would do well to have sound medical plans and an effective organization to meet the medical aspects of an influenza epidemic. The rapid onset of the epidemic makes it mandatory to have plans prepared well in advance and to see that local medical societies are cognizant of the magnitude of the problem prior to the occurrence of the epidemic. It is evident from experience gained in poliomyelitis outbreaks that the public looks to the medical profession and the Public Health Service for leadership in these emergency situations. It is imperative that the A.M.A. have a plan that is flexible enough to cope with a quick-spreading influenza epidemic. The plan must be realistic and suitable for implementation by state and local county medical societies.

Reports indicate the degree of prostration is such that patients become bedridden within a short period of time. In the military,

the majority of patients were hospitalized. Among civilian groups, greater reliance must, of necessity, be placed on home care as the current high occupancy rates in civilian hospitals does not permit large numbers of influenza patients gaining admissions to hospitals. Special situations would develop in civilian groups if the disease occurs in camps, large meetings, or assemblies as too frequently there are not adequate reserve facilities available for providing bed care for large numbers of patients who suddenly become ill. Each community should make a serious study and have suitable plans to cope with epidemics that might occur.

The use of vaccine in an influenza epidemic poses many problems. There may be difficulty in obtaining a large enough quantity of vaccine of this specific strain early enough so that it may be administered in sufficient time to evoke an adequate protective antibody response. There is question as to type specificity of vaccine. There would be difficulty in administering the vacvine depending upon public and professional acceptance. It if were a mild influenza epidemic, it is quite likely that the medical profession would find it difficult to use the supply manufactured. If it were a sudden large-scale epidemic, there would be a great clamor for the vaccine at a time when the epidemic is at its peak and when the vaccine would be the least effective. This would present a difficult problem. Method of control of the vaccine would present all of the problems encountered by the distribution of the Salk poliomyelitis vaccine.

Antibiotics are generally agreed to be ineffective in virus infections. It is felt that there would be a certain amount of public demand for the use of antibiotics in influenza epidemics. Since it is well known that primary influenza infections often are followed by secondary bacterial infections, a degree of justification in the use of antibiotics can be advanced.

In addition to the resources within the Association there are a number of other resources available. The Surgeon General of the Public Health Service has pledged the resources of the Public Health Service to the A.M.A. in the matter of furnishing information and assistance preceding and during the period of an influenza epidemic. These include: technical reports giving incidence rates, nationwide and worldwide; resources for the isolation and identification of infecting agents; sending of special epidemiologists to areas upon request for studies in the spread and control of epidemics; assistance to the state and local committees upon request for augmentation during an influenza epidemic.

The Department of Defense can be requested to furnish information concerning its experience in influenza cases among the military personnel and in their clinical handling of these patients. The Commission on Influenza of the Armed Forces Epidemiology Board has made continuing studies on the problem of influenza and could be requested to furnish specific information. The World Health Organization has a steady flow of information on reported influenza cases as they occur throughout the world.

Assumption as to Alternate Courses Epidemic May Take

Based upon the foregoing information reviewed by the study group on July 9, it appears that should an influenza epidemic break out in the United States, it would take the following alternate courses:

(1) Few minor sporadic outbreaks this summer but disappearing without large scale epidemic;

(2) Explosive outbreak of influenza in the summer of 1957 (before September 1) with same attack rate and mortality rate as currently exists;

(3) Few minor sporadic outbreaks this summer with explosive outbreak in fall or winter of 1957 (after September 1) with same attack rate and mortality rate as currently exists;

(4) Explosive outbreak in fall or winter with high attack rate and high mortality rate (similar to 1918).

Recommended Program of Action for A.M.A.

The study group believes that the American Medical Association should provide the leadership in formulating an appropriate in-

UNIVERSITY OF MICHIGAN LIBRARIES

formational and operational program to acquaint state and county medical societies, as well as the general public, of the possible outbreak of a rapidly-spreading type of influenza in the United States. The rapid onset of this influenza makes it essential to inform medical societies of the magnitude of the problem well in advance and to encourage the development of plans prior to any outbreak. Too little and too late could be disastrous, even though it is recognized that some portions of the program may never be used.

It is therefore suggested that the Board of Trustees give consideration to adoption of the following courses of action:

Informational Phase

(1) Immediate publication of a series of articles in the *A.M.A. Journal* informing the membership of the nature and extent of the current influenza epidemic in the Far East. These articles should provide scientific data so that influenza cases may be recognized immediately and properly treated.

(2) Publication of a report in the *A.M.A. Journal* from the Council on Drugs concerning therapy and use of antibiotics in influenza cases.

(3) Publication in the *A.M.A. Journal* of articles prepared by the Public Health Service and other agencies covering the clinical aspects and current reports of the incidence of the disease. Dr. William H. Stewart indicated the PHS will provide a steady flow of information.

(4) Publicize in *Today's Health* and through other appropriate channels information which will reassure the general public there is no cause for alarm concerning an influenza outbreak in view of the fact the illness is of short duration, it is generally mild and with few complications, and it has a very low mortality rate. Emphasis should be made concerning the close cooperation between the A.M.A. and the Public Health Service and that adequate plans and operational facilities are available to the medical profession to cope with the problem.

(5) An outline plan of public information should be prepared and instituted by the Public Relations Department.

(6) Should it appear the epidemic will reach explosive outbreak, then informational phamphlets, spot radio and TV announcements should be prepared by the Public Relations Department in cooperation with the Bureau of Health Education. In turn, other phases of the program should be expanded and intensified.

Operational Phase

(1) Immediate steps should be taken to inform state and county medical societies of the impact of influenza epidemics on normal professional services.

(2) The A.M.A. should suggest that state and county medical societies prepare or develop adequate stand-by programs and plans to cope with any such epidemics.

(3) In the formulation of these plans, consideration should be given to expanded professional care through the utilization of all medical personnel, regardless of type of practice.

(4) Plans should include mobilization of other professional resources such as nurses, nurses' aids, pharmacists, and others.

(5) Action to make full use of hospital facilities should be explored, such as curtailment of elective surgery, diagnostic studies, etc. The use of FCDA Emergency Hospital units might be required.

(6) Recommend that state and local programs be coordinated with public health agencies and state and local health departments. There should be close cooperation concerning diagnosing and reporting influenza cases. Joint planning may be advisable in many areas.

The Committee on Civil Defense of the Council on National Defense offers its full cooperation to the Board of Trustees in the implementation of the proposed program. The Committee maintains liaison with state emergency medical service committees and through its other numerous contacts in the field of medical disaster preparedness, it could assist in coordinating the activities of the Association, the Public Health Service, and the state medical societies.

Scientific Articles

Evaluation of the Present Use of CESAREAN SECTION

ROBERT A. COSGROVE, M.D., F.A.C.S.

THE AUTHOR

Robert A. Cosgrove, M.D., F.A.C.S., was graduated from Cornell University School of Medicine in 1936. Doctor Cosgrove resides in Jersey City, New Jersey, where his practice is limited to Obstetrics and Gynecology. He is Chief of of Division at the Margaret Hague Maternity Hospital in Jersey City.

Doctor Cosgrove is a member of the American Association of Obstetricians and Gynecologists. He is certified for the American Board of Obstetrics and Gynecology.

This paper was presented at the Annual Meeting of the Oklahoma State Medical Association, May 7, 1957, in Tulsa.

The purpose of the cesarean section operation is to deliver a healthy living infant to a surviving well mother when other means of delivery are fraught with certain or highly probable damage to either. However, it is an unnatural method of delivery; it is a major surgical procedure involving the transversing of a body cavity; and it usually means that the infant is delivered into a new environment without the normal reactions, whatever they may be, which take place during labor. Because it is a major surgical procedure, despite all improvements, it does have a higher maternal mortality than natural vaginal delivery, and despite the apparent certainty of elective operations in producing healthy children, such is unfortunately not always the case. At the Margaret Hague Maternity Hospital the maternal mortality accompanying cesarean section is 0.6 per cent (5,075 cases) which is a multiple of the total hospital maternity mortality. The fetal mortality rate is also much higher than the total hospital fetal mortality, but often this is pertinent to the complication for which the operation is done rather than to the operation itself.

The foregoing noted increased fetal and maternal mortality behooves us to examine the use of the operation to insure its necessity in each particular case.

Incidence

The reported incidence of cesarean section from institutions of good reputation usually is between two per cent and five per cent. Less well controlled and often unpublished statistics indicate that there are some institutions with cesarean section rates that may even approach 20 per cent. Because of the wide variation in incidence, it is helpful to determine the means of arriving at a satisfactory and legitimate percentage of instances of the performance of cesarean section.

With the known increased maternal mortality of cesarean section, it is apparent that the only excuse at all for the operation is the increased salvage of the infants so delivered. When an increasing incidence of cesarean section fails to provide an increased fetal salvage, no further increase in the cesarean section rate is either necessary or desirable. It is our personal opinion that this rate may legitimately be increased, particularly in view of the large number of repeat cesarean sections that are done, to five per cent or even eight per cent, but probably no higher. In addition to the mortality rates of mother and infant in the primary cesarean section, consideration is also necessary for the future pregnancies of the particular woman, since in most cases the performance of a cesarean section necessitates a repetition of the operation in all subsequent pregnancies. This not only increases the danger to the mother with each subsequent cesarean section, even though to a slight degree, but necessarily limits the number of subsequent offspring. How much this is due to particular changes in the uterus, and how much is due to the disinclination

UNIVERSITY OF MICHIGAN LIBRARIES

of women who have had one or more cesarean sections to bear further pregnancies is debatable, but its existence is certain.

Morbidity

In addition to the above noted maternal and fetal mortality, there is also an increased morbidity associated with the performance of cesarean section. If one uses the Maternal Welfare Committee standards of morbidity, approximately one third of all cesarean sections show some degree of morbidity. In most instances this is simply a mild febrile reaction for perhaps one or two days beyond the first 24 hours. Since the advent of Blood Banks and antibiotics, professional Anesthesiologists, and improved training and technic of surgeons, the operation generally should have little serious morbidity. Nevertheless, the spilling of blood and amniotic fluid into the abdomen, the lack of adequate preparation of the patient in many instances, the presence of intercurrent complications, respiratory infections, sometimes impending shock from hemorrhage in non-elective cases, all are factors which do increase the morbidity of the operation beyond the possibility of control in many instances.

The fetal morbidity is generally unknown, but it is apparent in studying statistics of the procedure that many infants delivered by cesarean section are not as vigorous and animated as one would desire. We think that it helps in reducing the infant morbidity to provide initial gravity drainage of the respiratory tract at least until the infant is crying satisfactorily, even before cutting the cord, and having present competent personnel, well trained in proper resuscitory methods, to handle the infant. Gastric lavage is often helpful, but drugs, except oxygen are relatively disappointing in providing proper resuscitation to most of the infants born with varying degrees of anoxia. We believe that many infants delivered by cesarean section should be transferred to nurseries if special handling facilities are available there, regardless of the actual weight or size of the infant.

Type of Operation

The low transverse cervical operation seems to us to fulfill in the highest degree the general requirements of a satisfactory operation. The incision is thus made through the least contractile portion of the uterus and in the general direction of most of the muscle fibers which results in lessening of the blood loss. We think that it heals better; that by being completely peritonealized and beneath the bladder flap adhesions are prevented which might complicate subsequent operations, and that possible infection is localized outside the peritoneal cavity. It is easy to repair, and even if it subsequently ruptures our experience has been that such ruptures are not catastrophic and very frequently can be handled without loss of either mother or the child.

In the presence of large variocosities usually radiating upward from beneath the base of the bladder, a vertical incision is better since it avoids transverse cutting of such variocosities. The thickness of the uterus from one part to the other of this incision, however, varies considerably making closure somewhat difficult, and if the area is to be completely peritonealized it necessitates an abnormally high bladder flap which may interfere with subsequent operations. It may be necessary in the presence of abnormal contraction rings or very large or deformed infants.

The extra-peritoneal cesarean section we believe does lessen the danger of death from peritonitis, and since in any series of cesarean section deaths a number are still due to peritonitis, we think that in certain indicated instances the extra-peritoneal cesarean section is the operation of choice. It takes longer; it is technically more difficult; but we think that it should be part of the technic of any competent obstetrician and that it should be available when needed.

We believe the so-called classical operation done through the corpus of the uterus is an archiac procedure even though when done by competent personnel the results do not differ very much from other types of cesarean section. Our own experience indicates that it is the most dangerous scar in relation to subsequent pregnancies, since if it does rupture it is much more apt to be catastrophic than the low uterine operations often with loss of the fetus and sometimes even the mother. The real danger of the classical op-

eration is its use generally by practitioners who are seldom experienced and little trained in obstetric procedure, so that it is often done incorrectly.

Other types of cesarean section such as the Portes and Porro are generally considered archaic even though the name Porro is often used to designate a cesarean hysterectomy which it is not. There are also instances where atypical operation must be done because of the presence of tumor, vascular changes, or other abnormalities of the uterus itself. In such instances the best type of incision is the one which will produce the best results regardless of where and in what direction it is made. Since hysterectomy is often a subsequent associated procedure the incision is often of little consequence.

Anesthesia

Spinal Anesthesia is used for about 98 per cent of our cesarean sections. In our hands it has been satisfactory. It does not suppress the infant's respiration; there is little if any interference from the bowel; and there is excellent relaxation, facilitating technic. There is also the advantage that the mother sees and hears her infant at birth. It is our impression that most of the reported dangers can be avoided by using simple drugs and low dosage, and keeping the patient flat and supine.

Inhalation anesthesia is generally satisfactory if the induction is not prolonged and if the operator is facile in removing the infant so that it isn't narcotized too much by the anesthetic agent. The principal factor in using inhalation anesthesia is a qualified well trained anesthetist at the head of the table.

Local infiltration is the safest anesthesia barring idiosyncrasies to the drug since it doesn't affect the infant whatsoever, and heavy pre-medication is generally unnecessary. It is not attractive to many patients. The operator must be allowed sufficient time after injection of the drug to insure anesthesia, and he must be meticulous in handling tissues. Even under the best circumstances there is considerable patient discomfort caused by manipulation of the peritoneum and its contents.

Intravenous anesthesia is finding a place in some areas. Those that use it a lot believe it quite satisfactory. Our own experience with it is extremely limited. When it is used the patient should be prepared and draped before the anesthetic is started, and the operator must be prepared to move quickly before the fetus receives much of the effect of the anesthetic agent.

Indications

Fetopelvic disproportion (49 per cent in our experience) was formerly the only valid indication for the operation. With normal presentation it is obvious that if the infant is too big or insufficiently molded, if the passages are too small, or the wrong shape for the particular fetus, or if the uterine contractions are insufficient to propel the fetus through the birth canal, cesarean section is the choice over difficult attempts at vaginal delivery. Despite the accuracy of roentgenologic determination of pelvic size and configuration, it is our firm belief that with few exceptions dystocia cannot be so accurately predetermined that elective primary cesarean section is indicated. In almost all instances it is not only possible but desirous to allow the onset of labor, preferably with ruptured membranes, before making a decision as to the necessity of operation. Dystocia by definition is abnormal labor, and we believe that it occurs when normal progress ceases or fails to occur. When this failure of progress occurs and evaluation is necessary, and if the considered judgment of the examiner indicates reasonable doubt of safe delivery by vaginal means, the cesarean section should be used.

Deflexion attitudes usually do not require abdominal delivery and generally can be managed vaginally in the absence of abnormal mensuration or configuration of the pelvis, or overly large infants. An occasional brow presentation particularly in a primigravida which has not been recognized in the early part of labor, may require operative delivery. Face presentations usually can be managed by the vaginal route unless dystocia other than that due to the deflexion is present.

Breeches are a special problem. It is our experience that because of subsequent damage to infants, even those that are born alive, cesarean section is the procedure of

UNIVERSITY OF MICHIGAN LIBRARIES

choice in more instances than would be considered valid with other presentations.

About one-sixth of our incidence of fetopelvic disproportion are caused by breech presentation, and we feel that a cesarean section incidence in the neighborhood of 15 per cent to 20 per cent for primigravid breeches is defensible.

An even higher incidence of cesarean section is acceptable for transverse presentation. A full term infant in transverse presentation is a non-deliverable situation, and unless the conditions for changing the polarity of the infant by version are present, the only safe manner of delivering the infant is by operative means. It has been our experience that too frequently the discovery of this abnormal attitude occurs late in labor, compromising the infant beyond its ability to survive. It has also been our experience that attempts at version when the prerequisite conditions (i.e., full dialation of the cervix, relatively recent or even better non-rupture of the membranes and no disproportion), are not present have in too many instances caused rupture of the uterus. Even under ideal conditions the results of version are disappointing.

It is our feeling that if women with dystocia are handled properly there should be little or no fetal or maternity mortality.

The next large group (10 per cent) requiring cesarean section made up of those who have hemorrhages late in pregnancy. Even under the best of circumstances there will be occasional fetal deaths in this group, and unfortunately even a rare maternal death because of the catastrophic course that some of these complications sometimes pursue with the death of either the mother or the fetus before treatment can be instituted.

At the present time the treatment of placenta previa is fairly well standardized. In the presence of a central placenta previa, cesarean section is the only satisfactory treatment. In the marginal or lateral types, if rupture of the membranes and perhaps some stimulation with intravenous pitocin causes a cessation of the bleeding and satisfactory progress, vaginal delivery is allowed. In general we do not believe there is any other method of treating this condition. Hydrostatic bags, partial or incomplete versions, scalp traction, etc., we believe are archiac and time-consuming methods of treatment when too much time may cause loss of life. We do not believe it necessary always to make the diagnosis of third trimester bleeding. If a woman has abnormal bleeding which stops, and at the same time the uterus is non-irritable, the fetal heart is vigorous and steady, she can be observed closely for perhaps weeks before it is necessary to attempt making any diagnosis. This insures diminishing prematurity of the baby, and in a well protected environment offers no great risk to the mother. If examination is done immediately on women with premature babies in whom placenta previa is suspected, it often forces the operator to deliver the baby promptly because of hemorrhage starting anew from the manipulation necessary to establish the diagnosis. If there be small bouts of bleeding of no great amount at each instance, it is perfectly feasible to replace the maternal blood loss with transfusions until such time as the infant is certainly viable enough to avoid most of the risks of premature delivery.

Abruption of the placenta is generally an obstetric catastrophe resulting in high loss of fetal life due to the anoxia caused by the separation of the placenta. Our attitude is somewhat radical in regard to the complication, and we think that in most instances of severe abruption the fetal outcome depends upon rapid delivery. Unless vaginal delivery can be predicted in a matter of a very few hours, we think it is justifiable to deliver the infant by cesarean section. Our experience in awaiting vaginal delivery in these cases has resulted in such a high rate of stillborn infants that we think it is justifiable to subject the mother to some added risk in the fetal interest. The mother is also protected from additional blood loss and the possible development of afibrinogenemia.

Rupture of the uterus is also a catastrophic complication, and there is no question concerning the propriety of immediate laparotomy. The infant often may be extruded in the abdominal cavity. If it is not, the uterine incision or opening must be enlarged to extract the child. Very frequently

the uterus must be sacrificed. There are occasional instances of rupture of previous cesarean section scars in which the scar simply splits open without damage to either the mother or the infant. In some cases the scars may be repaired without jeopardy to future pregnancies.

Toxemias of pregnancy account for 18 per cent of our cesarean sections. The only certain fact we know about the disease is that it is ameliorated by delivery of the infant. When treatment is unavailing and preeclampsia fulminating, particularly in primigravid women with uncertain outlook for vaginal delivery, we think the time element is of sufficient importance to subject some of such women to operative delivery. Once eclamptic convulsions are controlled in instances of eclampsia we think that within 12 to 24 hours delivery should be accomplished. If this is not feasible by the vaginal route, these women are also subjected to cesarean section.

Severe hypertensive cardiovascular disease is one of the most unsatisfactory complications of obstetrics to treat successfully. It becomes more unsatisfactory if complicated by preeclampsia. Frequently the fetus dies in utero before it has had sufficient gestation time to survive even if delivery were accomplished, and we think that at the earliest point of reasonably certain viability that the infant should be removed feeling that its chance in a premature nursery is better than being retained in utero. This may be accomplished by induction of labor if the conditions are satisfactory, but in instances of failure of induction we think that the infant should be delivered by cesarean section. In such instances the element of future pregnancies is usually not as pertinent to the performance of the primary section as it is in most other individuals since such patients generally are poor candidates for any pregnancy.

Diabetes is another unsatisfactory complication of pregnancy at the present time. Its treatment is quite varied and not as successful as we would like it to be. There is considerable controversy about the management of these women, and there are few clinics or institutions which see enough women with moderately severe or severe diabetes to establish their own policies. Our impression at present is that the babies of diabetic mothers should be delivered somewhat before term. Whether this should be two weeks or four weeks or even six weeks we are not certain, and whether it is best to try to deliver these infants by the vaginal route or by cesarean section is also unclear. Our own experience has resulted in our use of cesarean operations in about 30 per cent of cases of diabetes that are other than mild.

Inertia, either primary or secondary, represents an indication in our hands for but a few cases of year of operative delivery. We think that inertia per se is an infrequent complication. We believe that there is almost always some other factor associated with the inertia; usually mild degrees of cephalopelvic disproportion or instances of uterine dyskinesia which are more responsible for the lack of progress than simple inertia. However, we do think that it is a contributory problem in about a third of the cases by dystocia. It is often overcome by judicious use of sedation or pitocin. There are not many instances in which we feel that a cesarean section for inertia alone is a legitimate operation.

Fetal distress accounts for six per cent of our cesarean sections. The diagnosis is dependent upon the evaluation of the fetal heart tones and the significance of meconium. It is a common experience that even in the presence of irregular, slow, or fast fetal heart tones with or without meconium, after delivery the cause of the fetal distress cannot be accurately established. Whenever fetal distress does occur, a careful vaginal examination is mandatory to determine the presence or absence of prolapse of the cord. If there is no such evidence, x-ray films should be taken to eliminate, so far as possible, the presence of fetal anomalies. If the cord is prolapsed, rapid cesarean section is usually the only safe way of producing a live infant unless the conditions for immediate vaginal delivery are present. During the time that the operating room is being readied the mother should be given oxygen and placed in the Trendelenburg position. If it is feasible an attendant should maintain the presenting part sufficiently out of the pelvic brim to prevent

UNIVERSITY OF MICHIGAN LIBRARIES

compression of the already prolapsed cord. We have never been very successful in reposing such cords although in an occasional case it may be accomplished and further treatment therefor becomes unnecessary.

Previous cesarean section accounts for 35 per cent of our operations. Although our attitude is against the mere presence of a previous section scar as an indication, we find that multiple cesarean sections are not uncommonly encountered. Despite our attitude toward allowing a certain group of women with a primary cesarean section scar an opportunity to deliver vaginally in subsequent pregnancies, if such subsequent pregnancy does not result in vaginal delivery we do not think that any attempt at vaginal delivery is reasonable after two or more previous operations. We do feel very strongly that such women should be allowed to attain some evidence of the onset of labor before being operated on. This insures the fetus maximum safeguards against prematurity. We also think that a little labor tends to stimulate the baby and produce a more active and vigorous infant than those that are removed from a quiet amniotic sac without any labor.

Cervical amputations and conizations generally do not interfere with vaginal delivery, but occasional instances may cause sufficient scarring and fibrous reaction to make vaginal delivery dangerous. Colporrhaphies also occasionally make cesarean section necessary. After repair of genital fistulae caused by previous deliveries we think it good judgment to deliver such patients by cesarean section at the onset of labor.

Obstructive tumors are rare, but when they are present cesarean section is required because of mechanical obstruction. They are frequently overlooked when they arise in the ovaries since they may grow rapidly during pregnancy, and a woman with a small ovarian tumor on initial examination may surprise the obstetrician by having a tumor of much greater extent at term. The same attitudes in regard to fibroids, although initially myomas of the uterus rise sufficiently far out of the pelvis to obviate any obstruction.

Summary

A brief review of the cesarean operation is presented with comments upon incidence, morbidity, type of operation, anesthesia and indication.

The PORPHYRIAS

WILLIAM R. PASCHAL, M.D.

THE AUTHOR

William R. Paschal, M.D. was graduated from the University of Oklahoma School of Medicine in 1945. He makes his home in Oklahoma City where his practice is limited to his specialty of Internal Medicine.

Doctor Paschal is an Associate, American College of Physicians, a member of the Oklahoma Society of Internal Medicine and Osler Society, and the Oklahoma City Clinical Society. He has been certified by the Specialty Board of Internal Medicine.

This paper was read at the 24th Annual Washington's Birthday Clinic held February 22, 1957, at the Biltmore Hotel in Oklahoma City.

The porphyrins have come more and more into clinical prominence in recent years. We have progressed from Sherer's description in 1841 of a red pigment formed by the action of sulfuric acid on hemoglobin, through the revelation of its physical and chemical properties in 1871, and the recognition of the clinical entity of porphyria in 1911, to our present incomplete understanding of the nature of these substances.

At this time we have reached the point at which the clinical syndromes of the porphyrias are fairly well nosologically defined. However, our knowledge of the underlying pathologic physiology and biochemistry is still very inadequate.

The porphyrias are now generally classified into:

1. Congenital porphyria
2. Acute intermittent porphyria
3. Cutaneo-hepatic porphyria
4. Mixed porphyria
5. Miscellaneous types:
   1. Myoporphyria

2. Asymptomatic idiopathic coproporphyria
3. Porphyrinorrhea
6. Secondary porphyrinurias

These types will be discussed subesquent to an outlining of the current status of our knowledge of the biochemistry of the syndromes. A more complete understanding of these clinical states is dependent upon a knowledge of the biochemistry of the porphyrins in health and disease. However, it should be reemphasized that this knowledge is quite limited at this time. An attempt to crystalize this complex and somewhat confusing information into only those facts which are essential to the clinician will be made in this presentation.

Porphyrins, in general, are pigments which are found throughout the plant and animal world. For example, actinoporphyrin is the basis of chlorophyll, and protoporphyrin is the basis of hemoglobin. Clinicians are, of course, primarily interested in the porphyrins found in vertebrates, and this discussion is therefore limited to those particular porphyrins. While porphyrins, in general, can combine with certain metals, such as copper, cobalt, nickel, silver, manganese, zinc, tin, iron and other metals, we are concerned primarily with the protoporphyrin-iron compound in the vertebrate called heme. While heme will combine with proteins of various types, we are specifically interested in the heme-globin combination to form hemoglobin, which is, therefore, an iron plus protoporphyrin plus globin compound. This metalloporphyrin-protein complex is only one of the series of hemochromogens. Porphyrin in similar combinations forms the basis of other respiratory pigments, also; for example, that of cytochrome and of catalase.

All porphyrins have in common four pyrrole groups as a basic chemical structure. Such a structure may be illustrated as follows:

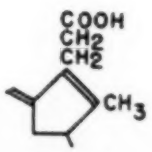
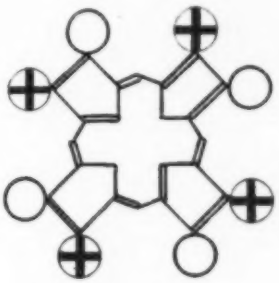


Figure 1

These four pyrrole groups are bound together by four additional carbon atoms, resulting in the following basic structure: (coproporphyrin I is used as an example):



COPROPORPHYRIN I

Figure 2

The varieties of porphyrins are distinguished by the position and presence of combinations of either methyl, acetic, or propionic groups attached to eight substitution points about this basic prophyrin nucleus. These substitution groups are all composed of carbon, hydrogen and oxygen atoms. In addition, these groups are so placed throughout the series of prophyrin compounds that each individual porphyrin has several stereoisomers (See Figure 3).

Porphyrin compounds in the human belong to two different groups. In the first group are those having four each of two different radicals in the eight substitution points around the porphyrin ring. Coproporphyrin and uroporphyrin are in this group. For example, it may be seen in Figure 2 that in the uroporphyrins the substitution groups are arranged so that four each of the acetic groups and four each of the propionic groups are present about the basic nucleus. On the other hand, in the coproporphyrins four each of the methyl groups and four each of the propionic groups are so placed. Four possible stero-isomers are present, and these isomers are designated as "types," and are numbered from I to IV. For example, examination of the diagram will reveal the differences in positions of the acetic and propionic groups in the isomers I and III of the uroporphyrin molecule. Only types I and III of the porphyrins are of interest in this discussion, since only they occur in nature. Types II and IV do

UNIVERSITY OF MICHIGAN LIBRARIES

not occur naturally, but have been synthesized.

In the second group of more complex porphyrins founds in the human three different radicals are present and are so arranged that four of one type and two each of the other radicals are present. Protoporphyrin is in this group.

For our purpose it is sufficient to state that all of the porphyrin compounds in the body represent various stages in a chain of compounds ranging from the relatively simple to the more complex, but all having the similar basic porphyrin ring structure. Of course, the question has arisen as to which compounds come first; that is, which porphyrins are precursors and which are synthetic products or breakdown molecules. Our interest in this chain is intensified when we find that several of these substances are excreted in the urine and feces in normal and pathologic states.

The present state of our knowledge regarding the relation of the porphyrins to each other and their derivation is somewhat incomplete. However, recent work with radioactive C^{14} has helped to bridge some gaps. Hence, it is believed that two molecules of a succinyl derivative condense to form a pyrrole, represented by porphobilinogen. Four of these molecules condense to uroporphyrin III, and this is then converted to coproporphyrin III and ultimately to protoporphyrin 9, which is the porphyrin of blood pigment. Note that all of these compounds are of the type III isomer. Although the type I series occurs as a by-product of the type III series metabolism, a similar method of metabolism apparently takes place for this series. (See Figure 4.)

It is important to note that prophobilinogen, uroporphyrin and coproporphyrin, the substances with which we are most often concerned clinically as excretion substances in the urine and feces, are not excretion products of the "central" protopophrin but are actually precursors of this very important molecule.

Carrying the chain of reaction further, we see that protoporphyrin 9 combines with iron to form heme, which is the metalloporphyrin of the blood pigment. This further combines with the protein, globin, to form hemoglobin.

We have then a scheme whereby protoporphyrin is synthesized. However, little is known regarding the breakdown of this substance in the body. It is known that most of the protoporphyrin in hemoglobin is eventually in some way broken down and eliminated normally as bile pigment.

Since porphobilinogen, uroporphyrin and coproporphyrin are the compounds with which clinicians are concerned in diagnosis, it is worth noting that while porphobilinogen

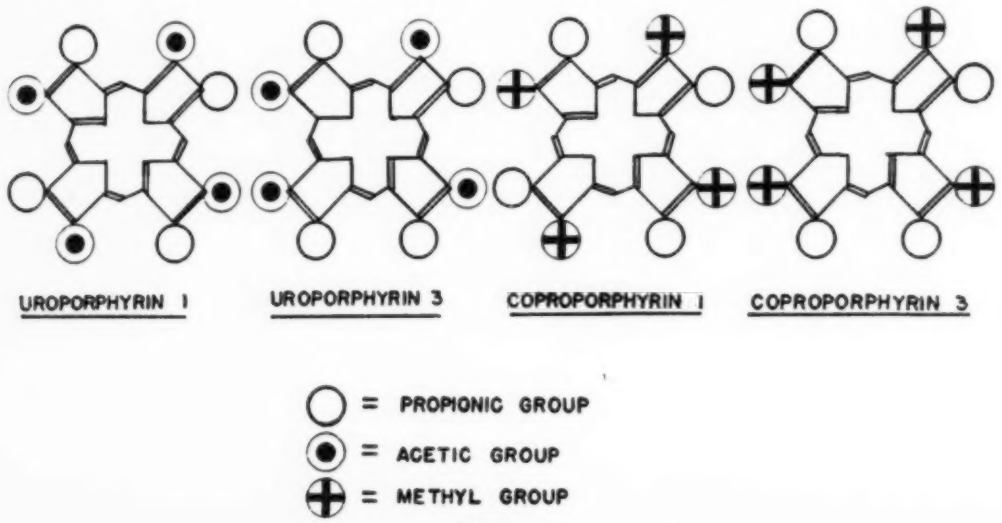


Figure 3

is not to be expected in normal urines or feces, the other two substances may be found normally in either feces or urine. For example, the type I isomer of coproporphyrin predominates over type III in the ratio of 4:1 in the excreta in normal state. This type I isomer apparently occurs as a by-product of hemoglobin synthesis, and this, along with small amounts of the type III isomer of coproporphyrin not utilized in hemoglobin synthesis is excreted by the liver in the bile, and eventually in the feces and urine. Some of these excreted porphyrins come from exogenous sources. In certain pathologic states the ratio of type I to type III may be reversed, and the quantity of one or both may be greatly increased. We know very little as to how or why these substances are so altered in pathologic states. In our subsequent discussion of the clinical types of porphyria, it will be evident that we do have some scant knowledge of the probable pathologic physiology.

With this basic understanding of the biochemistry of the porphyrins we may now proceed to the various types of porphyrias.

Congenital porphyria is a rare inborn error of metabolism, more common in males, which usually appears in early childhood. It may be due to a perisitence of fetal pyrrole metabolism, and is inherited as a recessive trait. These patients continuously excrete large amounts of coproporphyrin I uroporphyrin I. It has been suggested that this disease results from a disturbance of pyrrole metabolism in the erythropoietic system, probably a disturbance of the enzyme systems within the developing red cells, so that abnormal porphyrins are produced which are not available for hemoglobin synthesis. These young red cells which contain such excessive amounts of the type I porphyrins are probably broken down, and the type I porphyrins are excreted in large amounts, while those of type III are converted ultimately to bile pigments. Thus, excessive hemolysis may be an important feature of congenital porphyria. Some of these patients exhibit splenomegaly, and it has been suggested that these patients with "porphyria erythropoietica" may be benefited by splenectomy. At least, splenectomy may result in a reduced rate of blood destruction with a consequent reduced erythropoietic activity in the bone marrow, which has been previously hyperplastic.

Succinyl derivative ⟶ pyrrole (porphobilinogen) ⟶ uroporphyrin III ⟶ coproporphyrin III ⟶ protoprophyrin 9 (III) + Fe ⟶ heme + globin ⟶ hemoglobin.

Figure 4

Congenital Porphria

Congenital porphyria is associated with brownish or pink discoloration of teeth and bones by uroporphyrin, and marked light sensitivity of the skin, which produces changes varying from erythema to large bullae on the exposed surface of the hands, arms, face and neck. When these heal, scars form which are often associated with brownish pigmentation. Hepatomegaly, splenomegaly, and hirsutism may develop. The urine varies in color from light red to even black, and, if it is kept acid and exposed to light, this discoloration is sometimes intensified. The porphyrins present in the urine may be separated and identified only by a detailed laboratory procedure consisting essentially of extraction and subsequently examination under ultraviolet light.

Acute Intermittent Porphyria

Acute intermittent porphyria is the most common and most dramatic of the porphyrias. It is probably a familial disease, having been found in large numbers of related South Africans. It is a Mendelian dominant characteristic.

Little is known of its pathologic physiology. In this and the mixed types of porphyria there seems to be an abnormality of prophyrin metabolism related to the liver, rather than to the erythropoietic system; hence the term "porphyria hepatica" has been applied to these types by Watson. Patients with this abnormality experience episodes of severe colicky abdominal pains and skeletal muscle spasm, with fever and sometimes leukocytosis, simulating an acute abdomen. Indeed, many of these patients have had several exploratory laporatomies before a diagnosis is finally made. The picture may be further complicated by jaundice. The nervous system is acutely affected during the acute attacks. Severe neuritic pains, with foot and wrist drop, flaccid ascending

UNIVERSITY OF MICHIGAN LIBRARIES

paralysis of the lower extremities, ptosis of the lids, facial paralysis, diplopia, convulsions, and almost any other symptom or finding relative to the nervous system may develop. Loss of deep tendon reflexes may occur. A peculiar hyperactivity of the ankle jerks with absent knee jerks may occur. Retrobulbar neuritis and hemorrhage near the discs with sparing of the macula may develop. Marked contraction of retinal vessels, transient blindness, and fixed, dilated or contracted pupils may occur. Transient hypertension may occur. The clinician should be aware that quite often the only early evidence of acute intermittent porphyria is constant pain in the extremities. Localized muscle weakness may accompany this.

It is not uncommon for the psychiatrist to make the diagnosis when called in consultation to see a patient exhibiting mental changes varying from simple neurosis or hysteria, to depression, or a manic-depressive or schizophrenic type of psychosis. Patients with this type of porphyria are often quite irritable and uncooperative. Photosensitivity is not present.

Episodes of this type of porphyria are at times precipitated by intake of such drugs as barbiturates, alcohol, sulfonal and veronal.

Coincident with these acute exacerbations large quantities of uroporphyrin, usually of the type III, are excreted, along with large amounts of coproporphyrin III and occasionally of coproporphyrin I.

The main feature and most specific diagnostic finding, however, is the presence of large quantities of porphobilinogen during the acute attacks. This is excreted only in the acute intermittent type as a colorless chromogen, which on standing in sunlight changes to porphobilin, giving the characteristic red and black urine. Porphobilinogen is revealed by the very simple Watson-Schwartz urine test in which Ehrlich's aldehyde reagent is added to the urine along with concentrated hydrochloric acid and sodium acetate. If a pink color develops, chloroform is added, and the persistence of the color in the aqueous layer indicates porphobilinogen. False positives are rare.

Other Types

Cutaneo-hepatic prophyria is characterized mainly by photosensitive skin, with vesicle formation, and occassionally the skin is also sensitive to trauma and heat. This is the "cutanea tardive" type as described by Brunsting. No visceral manifestations are present. In contrast to the congenital type, with which these are confused, this type seems to be associated with hepatic abnormalities rather than with erythropoietic changes. Porphobilinogen is not excreted, but there is variable urinary excretion of Uroporphyrin I and III. These cases run a prolonged course. The mixed porphyrias also are chronic, with skin manifestations, but with intermittent acute exacerbations of visceral symptoms as in the acute porphyrias with coincident output of porphobilinogen. In addition, Uroporphyrins I and Coproporphyrins I and III are excreted. These also seem to represent a hepatic type.

The miscellaneous types of prophyria are not well defined clinical entities and are as yet poorly understood. Asymptomatic idiopathic coproporphyria occurs rarely in otherwise normal individuals.

The secondary, or toxic, porphyrinurias are associated with increased excretion of coproporphyrins in the urine. This occurs, for example, in lead poisoning and in intoxication with other heavy metals. Presumably this occurs because the metal interferes with the incorporation of iron into the porphyrin molecule, thus resulting in the excretion of increased amounts of the precursor, coproporphyrin. Sulfonamides seem to act in a similar manner. Alcohol intake increases coproporphyrin III excretion, and in hypermetabolic states with fever coproporphyrin I is excreted in excess. In certain hematologic diseases coproporphyrinuria occurs. In the aplastic anemias the coproporphyrin is apparently not available for hemoglobin synthesis for some reason, and is therefore excreted in excess. In pernicious anemia in relapse, there is an apparent arrest of protoporphyrin synthesis with consequent increase in excretion of the precursor, coproporphyrin. Hepatic diseases such as carcinomatosis, hepatitis and cirrhosis are associated with increase mainly in execution of type I coproporphyrin, and the normal biliary excretion is decreased with a consequent increase in urinary copro-

porphyrins. Other conditions associated with secondary coproporphyrinuria are Hodgkin's disease, hemochromatosis, leukemia, hemolytic anemias, pellagra, aribo-flavinosis, thyrotoxicosis and melanosarcoma.

Latent porphyria should be mentioned only because it has been found in asymptomatic relatives of patients with the acute intermittent type.

Pathologic changes found in the porphyrias include degenerative changes in the nervous system; diffuse cloudy swelling and atrophy and central necrosis, with fatty degeneration and siderosis in the liver; diffuse cloudy swelling of tubular epithelium in the kidneys with atrophy, and glomerular degenerative changes. In the acute form, segments of dilated bowel are seen.

No successful treatment has been found for any of the pophyrias. Recently chlorpromazine has been found useful in controlling the pain and psychic symptoms in the acute forms. Vitamin B_{12} has recently been used to alleviate photosensitivity in the cutaneotardive patients. Splenectomy has been of value in producing at least temporary remissions of the symptoms in the erythropoietic cases, and the associated hemolytic anemia is also lessened. Tetraethyl ammonium chloride relieves the acute pain at times in the acute intermittent type. Intravenous procaine is sometimes similarly helpful.

The diagnosis of the individual syndrome rests upon the extraction and subsequent examination under ultraviolet light, in the case of the coproporphyrins and uroporphyrins. Spectroscopic examination and paper chromatography are performed in the research laboratories. These and other refined techniques, however, are not necessary to the clinical diagnosis. The clinician needs to know that the coproporphyrins and uroporphyrins can be separated and identified as such in the well equipped hospital laboratory, and that the very simple Watson's test for porphobilinogen is specific for the acute intermittent types and for the mixed types.

Summary

A presentation of the basic chemistry and pathologic physiology of the porphyrias has been given, an attempt being made to stress aspects of interest to the clinician. These complex substances may be studied in the laboratory by several procedures. However, only those methods of interest to the clinician have been presented. There is much to be learned and as our knowledge progresses, it may be expected that it will lead into a more complete understanding of other diseases, since porphyrins are so basic to the respiratory enzymes in all living cells.

BIBLIOGRAPHY

1. Welcker, M., The Porphyrias. New England Jr. of Med. 232:1 p. 11. Jan. 1945.
2. Sunderman, F., Jr., and Sunderman F. Practical Considerations of Diseases of Porphyrin Metabolism. Amer. Jr. Clin. Path. 25, Nov. 55 pp. 1231-1247.
3. Kark, Robert M.: Clinical Aspects of the Major Porphyrinopathies Med. Clinics of N. Amer. Jan. 1955., pp. 11-29.
4. Dobriner, K. and Rhoads, C. P.: Porphyrins in Health and Disease. Phsiol. Review 1940. 20: pp. 416-468.
5. Melby, J. C., Street, J. P., and Watson, C. J.: Chlorpromazine in the Treatment of Porphyria, JAMA 162:3 Sept. 15, 1956. pp. 174-178.

Credit for Figures 1, 2, and 3 is given to the *New England Journal of Medicine*.

Second in a Series

STOP RHEUMATIC FEVER

THOMAS H. HAIGHT, M.D.

THE AUTHOR

Thomas H. Haight, M.D., is Associate Professor of Preventive Medicine and Public Health and Medicine at the University of Oklahoma School of Medicine. He is also Consultant Associate Professor of Pediatrics at the school.

The theme of the column this month is the Epidemiology of Streptococcal Infections. Certainly, it is evident, as will be more clearly defined and elucidated upon succeeding columns, that fundamental to all patients with rheumatic fever and its serious sequel of rheumatic valvular heart disease is the preceding infection by the Lancefield Group A beta-hemolytic streptococcus. Since this is, in essence, the *sine qua non* for the still mysterious steps leading to the development of the rheumatic state, it behooves us to take stock of our knowledge of the epidemi-

UNIVERSITY OF MICHIGAN LIBRARIES

ology of streptococcal infections. Several excellent articles are to be found in the medical literature, and your specific attention is directed to them.[1, 2, 3]

Epidemiology has been defined by Maxcy as the field of science dealing with the relationships of the various factors which determine the frequencies and distributions of an infectious process, a disease, or a physiological state in a human community. If we are to STOP RHEUMATIC FEVER, then we must be enlightened about the epidemiolgical factors and their interrelationships concerning streptococcal infections. Only through adequate knowledge of the biology of the beta-hemolytic streptococcus and its effects upon the biology of a human host can we begin to appreciate the need for control of this important infectious disease, not to mention the sequelae.

The streptococcus is ubiquitous and omnipresent twelve months of the year, hence the risk of rheumatic fever cannot be denied in any month or season. What are the risks of acquiring a streptococcal infection that may lead to rheumatic fever? It has been shown by Rammelkamp and his co-workers that if a volunteer subject is inoculated with a specific type streptococcus from infectious material of a patient, it is not possible to recover that organism from cultures of the tonsils and oropharynx during the first 32 hours following inoculation. Approximately 44 hours after inoculation of the volunteer the typical symptoms of sore throat begin to appear, but the streptococcus was cultured only a few hours before these symptoms were noted. Subsequently the number of organisms increased rapidly, and following this the classical signs of exudative pharyngitis appeared. Hence it would seem that in an individual not previously immunized by infection by a specific type streptococcus, the likelihood of infection following a fairly vigorous exposure is moderately certain. It must be remembered, however, that certain other epidemiological factors are operating too, and these will control the dose of inoculum that any given individual may receive. These latter considerations would include how early the diagnosis is made, and whether treatment and/or isolation of a case of streptococcal infection has been achieved before too many members of the family circle or community could be exposed. The host is capable of handling a certain number of infectious particles, although here too it is to be noted that great variations in susceptibility to streptococcal infections exist in the population at large.

If one considers only the infected individual for a moment, what are the risks of this particular infection from a public health view-point? We have adequate data to suggest that untreated cases of streptococcal infection are followed by a rather high carrier rate. If one compares, for example, the normal carrier rate of a civil population to be from between 5 to 10 per cent of individuals carrying beta-hemolytic streptococci to that of a group of untreated individuals with streptococcal infections, who after about three weeks are still showing 60 to 95 per cent positive cultures for the streptococcus, it is evident that these latter individuals create a marked hazard to the populace and all efforts must be made to alter this epidemiological factor leading to further streptococcal infections and possible rheumatic fever.

The interrelationships of bacterial and host factors in the epidemiology of streptococcal infections are not well understood. Hamburger pointed out the great importance of those individuals who spread their streptococci by the nasal route. This correlated well with earlier work demonstrating that streptococcal infections were much more apt to occur in people exposed to patients with sinusitis or other suppurative complications. This would clearly emphasize the point made some years ago that the ability to spread infectious streptococcal particles to new hosts is definitely related to the number of streptococci harbored in various passages of the respiratory system. Quantitative studies done by Rammelkamp and his group showed that the risk to an individual exposed to a carried harboring a large number of streptococci was approximately three times as great as the risk when the exposure was to a carrier whose culture showed less than 10 streptococci. It should be pointed out, however, that certain basic work has been done which indicates that perhaps during the convalescent carrier

status, there are certain biological changes occurring in the streptococcal organism itself. This can be host-induced, but it is also well known that the chronic carrier is less likely to transmit an infection than an acutely infected individual. The latter observation, of course, may be entirely related to the number of streptococci present for transmission.

A facet of epidemiological investigation that has received considerable attention is the high incidence of streptococcal infections in certain locales and during certain seasons. It should be reiterated, however, in passing that all climates in all areas are subject to streptococcal infections twelve months a year. The reasons for these variations have been at least partially attributed to the fact that in certain colder climates, there is greater indoor crowding and hence more opportunity for intimate contact with infected members of the family or friends. Possibly, too, there are climatic effects on the streptococcus itself that have not been adequately explained. It is well to be aware of the problem in one's own locale, so that alert and intelligent physicians may institute appropriate measures to STOP RHEUMATIC FEVER if there seems to be some deviation from normal incidence of streptococcal infections. To this end, of course, all physicians are morally bound to report diligently to their State Health Departments all cases of streptococcal disease which they see, in order that proper authorities may better act as watchdogs over an impending epidemic that would surely result in an increased incidence of rheumatic fever.

The role of the environmental deposits of streptococci is yet to be completely understood. Certain studies, mainly in military populations, have suggested that during epidemics of streptococcal infections, the reservoirs of floor dust, clothing, bedding, blankets, and other articles might be a source of continuing infection. While certain of these data are quite suggestive, there are others who think that they are quite circumstantial. It is true, however, that measures directed at controlling the environmental deposits of streptococci, while perhaps somewhat successful bacteriologically in suppressing the streptococcal colony counts, were never completely successful in aborting epidemics of streptococcal infections. Hence it would appear that in the epidemiology of streptococcal infections, the human reservoir and its various modes of transmission must be considered as the prime area of attack.

In summary, then, it is to be remembered that most individuals of all age groups are susceptible to streptococcal infections. Certain younger age groups and those with previous rheumatic fever appear to be more susceptible. The likelihood of infection appears related to the intimacy of contact, to the number of organisms that are acquired and by which route acquired. The astoundingly high per cent of individuals who remain as carriers following untreated streptococcal infections, with the consequent public health risk, strongly mitigates for the early diagnosis and treatment of these patients. Attention must be given to the fact that streptococcal infections occur in all climates and all areas twelve months of the year, and hence if we are to STOP RHEUMATIC FEVER, we must focus constantly on the early recognition of streptococcal infections. Finally, since the environmental deposits of infectious particles do not appear to play a major role in the epidemiology of streptococcal infections, all the more effort must be expended upon the human reservoirs, treating the sick, sorting out and often treating the contacts, giving prophylaxis, and taking all possible measures to STOP RHEUMATIC FEVER.

This is the second in a series of articles prepared for the Journal in cooperation with the Oklahoma State Heart Association.

REFERENCES

1. Rammelkamp, C. H.: Epidemiology of Streptococcal Infections, Harvey Lectures, Ser. *51*, 113.
2. Coburn, A. F., and Young, D. C.: "The Epidemiology of Hemolytic Streptococcus," Williams and Wilkins Co., Baltimore, 1949.
3. Rantz, L. A., Maroney, M., and DiCaprio, J. M.: *In* "Rheumatic Fever, a Symposium," Univ. of Minn. Press, Minneapolis, 1952.

Special Articles

University of Oklahoma SPEECH *and* HEARING CLINIC

JOHN W. KEYS, Ph.D.

Developmental History

In October 1947, almost ten years ago, a new outpatient clinic in the Crippled Children's Hospital in Oklahoma City began offering its services to the men, women and children of the State of Oklahoma. This in itself, was not unique since other clinics in the hospital had come into being at previous dates with no particular birth pains and little fanfare. This clinic was different, however, in that its staff was made up of non-medical personnel and its concern was with the patient after his medical needs, if any, had been cared for.

No one doubted the need for such a clinic since it was completely obvious to all that there were many patients who could not be restored to productivity, or social usefulness through medical treatment alone. Further therapy of a different type was needed. The palate of a child with a complete cleft could be surgically repaired, yet his speech might remain so inadequate that his whole personality structure would be warped. Suppurative ears could be treated medically or by operative techniques and yet in many instances the hearing loss remained to retard the child's development. Brain damage could be diagnosed by the pediatrician and the neurologist but there was no medical cure. Many of these patients, however, could receive substantial benefit from other types of therapy and in fact for many, this type of therapy was their only hope.

A decade ago, however, these so called paramedical therapies were not generally found in hospitals throughout the country, and there was considerable doubt on the part of many in the medical profession that such a clinic as the one proposed for the treatment of speech and hearing disorders had any real function in a hospital at all.

EDITOR'S NOTE

This clinic represents another aspect of teaching and service offered by the University of Oklahoma's Medical Center. The story of its development is told here by its director, Dr. John W. Keys.

Deafness in a child is discovered early in his life. It is not always so in the case of a child with hearing loss. The clinic has agreed to furnish *The Journal* with case studies representing various types and degrees of hearing loss so that the profession can learn to recognize clues and signs of hearing loss as early in life as remedial measures are possible.

Too, space then, as it still is, was at a premium and many of those concerned felt that the rooms proposed for the use of the clinic could be more profitably utilized in other ways. These views were expressed in a completely sincere and honest manner and are mentioned here only to demonstrate the fact that the inception of the new clinic in the hospital was not completely and unanimously acclaimed as a forward step.

It may be mentioned in passing, that today almost every large medical center in the nation, including such hospitals as Mayos, Johns Hopkins, Washington University Medical School, Northwestern Univesrity Hospital and many others has such a clinic. Oklahoma University was one of the first in the country.

In the discussions that continued over a period of several months, three facts continued to emerge over and over. First, the type of services to be offered by the clinic were vitally needed by such agencies as the Crippled Children's Commission, Vocational Rehabilitation and the Veterans Administration, by doctors, schools, and parents. Secondly, no other institution at that time or in the foreseeable future, was in a position to offer such services on the scale need-

ed. Thirdly, such a clinic should be under the general supervsion of the Department of Otolaryngology and its works should be done in close cooperation with other medical disciplines in the hospital.

To meet these immediate needs, the School of Medicine provided five thousand dollars and Rotary International gave three thousand dollars. Remodeling began in a 1200 square foot area in the basement of the Crippled Children's Hospital in preparation of the University of Oklahoma Speech and Hearing Clinic. Another grant of twenty-five thousand dollars by the Children's Bureau of Washington, D.C. administered through the Commission for Crippled Children made possible the purchase of needed equipment.

The clinic began its work with a staff of five persons, an audiologist, a speech therapist, a teacher of the deaf, an electrical engineer, and a director. Five little deaf children, aged three, sat in small wooden chairs round their teacher ready to receive their first lessons and to start on the long and sometimes mystifying road of learning how to speak.

As has been stated, all of this happened almost ten years ago. This month, the Speech and Hearing Clinic will move into a new one hundred-ninety-three thousand dollar building on the Medical School campus with a staff of seven teachers of the deaf, three speech therapists, an audiologist, a social worker, three secretaries, and a director. Forty deaf children aged three to 13, occupy six new modern classrooms while an additional fifty or sixty children with speech problems are receiving therapy in other clinical rooms in the new building.

The building itself, modern in design, occupies a space of approximately 8000 square feet. In addition to the six classrooms for the deaf, there are two large speech therapy rooms, eight offices, three of which are combination office and speech therapy rooms, two large conference rooms, and three complete audiological test units. Each test unit is composed of a control room in which the testing equipment and the observer are located and the test room in which the patient is seated. The walls of these rooms are approximately twenty-eight inches thick and are constructed of solid concrete, hollow tile, and plaster with sound absorbent material covered with perforated transite forming the innermost portion of the wall structure. The test room in which the patient is tested is literally a room within a room since it is at no point in actual contact with the outside wall of the test unit.

A very large room in the basement adds an additional 1000 square feet to the useable space in the building. This room is completely equipped with kitchenette facilities which made it possible to provide hot lunches for the children. The room is also used for handcraft and play activities as well as a meeting place for the school's parent-teacher group.

It is obvious that the development of the new building was not accidental. Over the years the clinic continued to grow and develop as the need for its services increased. A wooden army barracks was purchased by the University and the Oklahoma Society for Crippled Children, and it became the home of the School for the Deaf. Other rooms were added as the patient load increased until the clinic was operating in three different buildings on the campus. It became evident that new quarters would have to be found in which the clinic could be housed, but where, and who would furnish the money for these quarters?

The answer to these questions covers a period of approximately five years and is too long to include here. Suffice to say that the members of the Oklahoma City Junior League became interested in the solution to the problems and accomplished what seemed at first to be the impossible task of raising approximately $85,000 for a new building. It can be said to their credit that the task was completed in the face of considerable adversity, and it was only through their determination, perserverance and effort that the goal was finally achieved. Other civic groups such as the Quota Club, the Exchange Club, Variety Club, Kappa Kappa Gamma and the parent teacher group of the Deaf School along with a large number of private donars contributed toward the building or equipment fund. This money totaling over $100,000 was matched by Hill-

Burton federal funds from the Department of Vocational Rehabilitation.

Purposes of the Clinic

Four general purposes are served by the University of Oklahoma Speech and Hearing Clinic: (1) Speech and Audiological services, both diagnostic and therapeutic, are offered to the people of the State of Oklahoma and in some instances to individuals from other states. (2) The clinic provides an essential laboratory for the training of teachers of the deaf, speech therapists, and clinical audiologists. (3) Counsel and guidance are offered parents of children with speech and hearing handicaps. (4) Unusual opportunities for research are provided by the clinics.

Whom the Clinic Serves

Approximately eleven hundred outpatients will be seen in the clinic this year. In addition, some eighty to one hundred children are receiving training of an educational or therapeutic nature in the clinic each week. These patients come from all over the State of Oklahoma and are referred by physicians, public health nurses, public school speech therapists and other outpatient clinics in the hospital.

The clinic holds service contracts with Vocational Rehabilitation, Crippled Children's Commission and Veterans Administration. Thus, most of Vocational Rehabilitation's hard of hearing patients and all veterans eligible for new hearing aids through the Veterans Administration receive hearing-aid evaluations in the clinic. Under the nationally authorized review program conducted by the Veterans Administration, some eight hundred veterans from this state will receive assessment of social efficiency examinations in the clinic during the next three to four year period.

A sizeable portion of the patient load consists of private patients, both children and adults.

Clinic Services

The clinic offers the following services:

1. Hearing evaluations and hearing aid evaluations for children and adults.
2. Classes for deaf children.
3. Auditory training and speech reading for the hard of hearing.
4. Speech (outpatient) examinations.
5. Individual and/or group instruction of all types of speech disorders.

The School for Deaf Children

The School for the Deaf is an integral and functional part of the clinic. Here some forty deaf children, ranging in ages from two and one-half to thirteen years, attend classes daily, where they not only receive speech training, auditory training, and lip reading but an elementary school education as well. The oral method of instruction is used exclusively in the classrooms and on the playground.

Nursery and kindergarten groups attend only for a half day. Those of school age come for a full day, not only for the therapies mentioned above, but also for regular elementary school subjects.

During the summer months hard of hearing children from all over the state are brought to the clinic for remedial training. Each child is given a hearing evaluation and fitted with a hearing aid, if it is indicated.

The number of children who can be accepted for enrollment in the school is limited for three principal reasons. From the University's point of view, the school serves as a laboratory for training teachers of the deaf. At least six elementary school levels must be represented in the training program, to give the student in training adequate experience in teaching children of various age groups and at different grade levels. Any expansion beyond this criterion is perhaps unwarranted for teacher training purposes.

The new building provides only six classrooms for deaf children and since not more than six or seven children can be taught adequately in each room the upper limit of enrollment in the school is approximately forty students.

Operating a school for the deaf is an expensive proposition. Because of the need for individual instruction in working with deaf children, the classes, as was just mentioned, must be very small. It costs over five times as much to educate a deaf child for one year as it does a normal hearing child.

Speech Therapy

A sizeable number of the patients seen in the clinic each year are very young children who for one reason or another have failed to develop speech. Children who are not talking by the time they reach three years of age deserve and are in the need of some expert attention by specialists. This type of specialized help is the business of the speech therapy section of the clinic.

Delayed speech may be caused by one or more of five specific reasons: (1) mental retardation; (2) physical anomalies such as cleft palate or early illnesses; (3) hearing loss; (4) brain damage; (5) psychological disturbances. These are problems which children do not "simply outgrow."

Differential diagnosis at this early age is not always a simple matter. Not only is this the problem of the speech therapist but it is also the concern of the pediatrician, the psychologist and many times the neurologist. Ideally, patients are studied by such a group of specialists acting as a clinical team.

By far the greatest number of youngsters coming to the clinic for help are those with articulation problems. Omissions and/or substitutions of speech sounds are a common problem with very young children and as they grow older some of them need special help and guidance to overcome their problem. Therapy is not limited to these children but also extends to the parents who in some instances are heavy contributors to the child's problem.

Children usually attend therapy sessions two or three times a week for half or full hour periods depending on the age and needs of the child. Both individual and group instruction are available and this too is determined by the clinical needs of the patient.

Speech therapy is also available for both children and adults who have voice problems, stutterers, for aphasics, and for those with cleft palate speech. Esophogeal speech is taught to laryngectomized patients.

Clinical Audiology

Some eight hundred and fifty patients will be seen this year in the audiology section of the clinic. These patients range in age from two to eighty years. They come to the clinic for a variety of reasons. Parents of children of three who want to know if the child's failure to talk is caused by a hearing loss; school children are referred because of a suspected hearing loss when they are doing poorly in school or are disciplinary problems in the classroom; patients of all ages wish to determine the amount of their hearing loss and whether a hearing aid would be beneficial; other persons are referred by otologists who wish to determine the eligibility of the patient for the mobilization or fenestration operation.

The clinic has the latest and most up-to-date equipment available for evaluating hearing loss. PGSR (psycho galvanometric skin response) testing is employed primarily with adults although some testing is done on children. A loaner stock of the lastest model hearing aids is also available for use in hearing-aid evaluation. Special tests such as loudness balance, signal to noise tests and others are performed where indicated.

Admission to the Clinic

In general, there are only two ways by which a patient may be admitted to the Speech and Hearing clinic. He may be referred by one of the agencies with whom clinic has a service contract or he may be admitted as a private patient. The clinic does receive a limited number of referrals from other outpatient clinics in the hospital.

Although fees are charged those who can afford to pay, it is intended that no child in the state of Oklahoma be denied a speech or hearing examination for financial reasons. Parents who are unable to pay the regular outpatient fees may make application to the Oklahoma Commission for Crippled Children for such an examination. In a similar manner, adults who meet the criteria of eligibility by Vocational Rehabilitation are accepted as referrals from that agency.

The State Hearing Program

Hearing services are not confined entirely to the clinic. A traveling consultant in audiology, employed by the Commision for Crippled Children and working through the State Department of Public Health is also a member of the clinic staff. His responsibility is that of conducting a statewide hear-

ing program. During the past five years over 95,000 children in the public schools of the state have received hearing tests. Of this number three per cent were found to have hearing losses of varying degrees of severity. The merit of this program, of course, rests in the fact that a timely medical intervention can, in some instances restore a child's hearing to within normal limits, or at least prevent it from deterioriating further. In those instances where irreparable damage has already occurred to the ear and medical treatment cannot improve the situation, speech reading, auditory training and a hearing aid may very well allow the child to make normal progress in school and social situations. Were such a child to remain undiscovered, as was the case in many instances before such testing programs began, he would quite likely continue to be or at least develop into a social misfit, a retarded and seriously misunderstood youngster.

The Teacher Training Program

The University offers a complete curriculim of training for prospective teachers of the deaf, clinical audiologists, and speech therapists. All degrees are conferred through the Speech Department in the College of Arts and Sciences of the University. At present there are approximately forty majors in speech and hearing in various stages of training. These students do some of their course work and most of their clinical practice in the clinic. The University offers the Bachelors, Masters and Ph.D. degrees in these areas.

The Staff

Fourteen full time people comprise the clinic staff—a clinical supervisor of Speech Therapy and two therapists; a supervisor of teacher training in the school for the deaf and six teachers of the deaf; two clinical audiologists; a social worker, and the director.

In addition to the clinical staff in Oklahoma City, two professors are employed on the Norman campus to offer the basic and advanced non-clinical courses in Speech Therapy to the University students in training.

What of the Future

The speech and hearing program in the State of Oklahoma has just fairly gotten underway. The new facilities at the University of Oklahoma will allow for some increase in services to the people of the state, but not to the extent needed to satisfy the demand. Thousands of children need help with their speech and hearing problems and as yet that help is not forthcoming. Undoubtedly the greatest function which the University can play in alleviating this situation is through its training program, both at the undergraduate and graduate levels. The speech and hearing clinic offers a superior laboratory for obtaining clinical experience in that training program.

Another part of the total program which must be expanded falls under the heading of research in both speech and hearing. A great deal, in fact nearly all, of the recent advancements in clinical audiology have come from University experimental laboratories of one kind or another. There seems every reason to believe that with the increased and improved facilities for clinic operations that there will be additional opportunities in the field of research.

No educational program whether clinical or otherwise, of course, can advance beyond the level of the abilities and capabilities of the people who make up the staff. Because of the tremendous scarcity of qualified and competent people in all areas of speech and hearing, it becomes increasingly difficult to compete with other institutions for the services of these people. The clinic is fortunate in its present staff. Any prognosis of success for the clinic in the future must be qualified by or limited to the degree to which financial support for the clinic can be maintained or increased in order to maintain that staff.

PRESSURE GROUPS IN HEALTH

W. R. BETHEL, Assistant Executive Director
Oklahoma Blue Cross and Blue Shield

You as an individual are perhaps not conscious of your participation in the development of health services in this country. But if you are a veteran, a member of a labor organization, a member of the armed forces, a dependent of one, or a recipient of public welfare funds, a person who works with health matters in any field, a member of a pre-payment Plan, or a taxpayer you are a participant in one of the greatest social developments in our country today.

Federal control of medicine in the United States is *not* a forgotten issue. It is entirely possible that within the next four to eight years definite action will be taken to bring the providers of health care under more drastic regulations of the Federal Government. This action will be taken by those responsible in government as a result of a demand from the people, for this is something that the people have been unable to solve for themselves.

This action is, today, being formulated as a result of great pressure groups presenting divergent demand for the removal of economic problems of health. The numbers of people in these pressure groups are so great that their influence is felt by someone in all most every family in our country. When we can get a glimpse of these forces, we can more readily understand why the economics of health has been a major issue in the last three presidential elections.

These great forces have already developed to the point that only one alternative is apparent to help curb the development of such control. The people in local communities throughout the nation must join forces with the medical and hospital professions in an all-out voluntary effort to solve these economic problems or be ready to face the coming problems of governmentally controlled medical care.

These three important publics must arrive at a positive, harmonious agreement on the best—and quickest—way to cope with the problems of health care expenses without government control.

Meeting the desires of the people of our country for an adequate health care program is considerably more involved than simply following the principles that govern insurance. For example, health care has always been a local community concern with the neighbors and friends working as a team in developing solutions to their mutual problems.

In the rough and tumble formative days of Oklahoma, about the only health service available was that provided by the family physician. It was not uncommon for patients to be brought many miles by buckboard or flatbed wagon to receive the loving care of a good physician. In many instances, the patients were too ill to be allowed to go home. The doctor found himself and his family sleeping on the floor and his patients in the beds. Ultimately, the home of the physician became the local hospital.

Gradually, the people became conscious of their responsibilities in providing health care needs and relieving the family physician of the financial burden of providing health care needs and relieving the family physician of the financial burden of providing hospital care. As a result, the local community hospital came into being.

Many remember the tragic days of the 1930's. The problems of financing health care facilities became greater and greater as hospital after hospital faced closing their doors in bankruptcy. But it was out of these circumstances that the communities began searching for solutions to their problems of financing adequate health care—at a cost they could afford. The necessity for immediate action created the overwhelming desire for a solution to their problems.

As is always the case when free men begin to create new ideas for the solution to their problems, there is always a counterpart in government control. This control examines the solution to see if it is something the people cannot do for themselves.

Speaking of a paternal government, it is amazing to see the speed with which people

attempt to forget their near crises and the rapidity with which they shift responsibility. Today, we visit with a great many physicians, hospital administrators, and businessmen. When the words "socialized medicine," "federal medicine," or "governmental medicine" is mentioned, they seem to permit their minds to run under the shelter of that "I don't want to have to think about it" attitude, and then laughingly say, "Oh, socialized medicine died with the Roosevelt Administration."

Socialized, federal, or governmental medicine did not die with the Roosevelt Administration. To the contrary, the idea was borne by the social planners, Oscar Ewing, Arthur Altmeir, Isador Faulk, and Senators Wagner, Murray, and Dingle. The trends of the Congress of those days were that of social reform, and it is nothing short of a miracle that they did not "rubber stamp" a program into being.

In reviewing the sequence of events, it becomes apparent that there were only three reasons why a federal health care program was not passed during the Roosevelt Administration:

1. The new voluntary experiment known as Blue Cross was able to show certain members of Congress the amazing results of early experiments in enrolling people in a voluntary program.
2. The Administration became involved in organizing and financing a world conflict, so there was neither manpower, time, nor finances for the experiments necessary.
3. The last and most important reason is that the social planners did not have a specific and workable program—because there had not been adequate experimentation.

Since that time the federal government has been more or less preoccupied with foreign affairs to the extent that it has not returned to its former mental attitude of financing health care and meeting the demands of the people. The people, on the other hand, have been slipping under the blanket of the higher and higher incomes of the present day economy.

In the intervening years, however, there have been many experiments going on. Some are a result of voluntary efforts and some are in government, and some of them are serving as a creeping paralysis to remove the control of medical practice from the private practicing physician, the local community hospital, and the local citizen. Some of the approaches that have been developed are summarized here:

Group Practice

Private Group Clinics

Group practice falls into many categories which may be organized by a group of private practicing physicians who join together to establish a group clinic. They offer their services to the general public on a pre-payment basis. For example, the people of the surrounding community may pay a certain amount each month for what they may need in the future. When care is needed, they merely go to the clinic and any one of the physicians in the private group may serve and treat the patient. There are more than one-half million persons subscribing to private group clinics.

Consumer Cooperative Groups

These associations are usually managed by non-professional boards of trustees who employ physicians to provide care for their members. They sell the service of the physicians to all the people in the community who want medical care on a prepaid group basis. Membership in this type of organization now exceeds a million members in the United States. These organizations work to the exclusion of the private practicing physician.

State Group Medicine

Another type of group practice is that similar to the Health Insurance Plan of New York (HIP). This plan is an independent, non-profit health insurance program originally established for the municipal employees of New York City. It provides complete medical, hospital, clinic, and home medical and nursing care to its members. HIP found it could not handle the hospitalization portion of this coverage, since it owned no hospital facilities of its own. Ultimately, it turned this portion of the coverage over to the Blue Cross Plan of New York City. However, HIP still operates as a group practice.

Industrial Group Practice

Another new and unique prepayment group practice organization was founded during the second World War by Henry J. Kaiser, the industrialist, to provide complete hospital and medical care for employees working in his plants. This program is commonly known as the "Permanente" Foundation. In 1946, the program was made available to the general public on the usual prepayment basis. Medical and surgical services were made available by the Foundation. Hospitalization is supplied by the Foundation's hospitals. These hospitals are for the use of its members exclusively. Although the members receive comprehensive health care, they are not privileged to select the physician attending them. This group practice organization also works to the exclusion of the privately practicing physician.

Labor Union Group Practice

Many have read a great deal about the hospital medical program designed by John L. Lewis and the Coal Miners' Organization. This is only one of several different Labor Union Group Practice programs which have been established.

Labor Union Group Practice for hospital and medical care is ordinarily established by the officers of the union—using welfare funds to build hospitals, clinics, hire staffs and physicians to provide medical and hospital care to members of the union. Occasionally, this is expanded to permit others residing in the community to participate.

But it is important to note that the majority of the millions of organized labor have obtained coverage provided under the voluntary prepayment programs. This is especially true in the major industries of steel, automobile, communications, and transportation. It is also significant to note at this point that the majority of the voluntary prepayment medical Blue Shield Plans sponsored by local medical societies ([1]having some 39 million members) were organized under the premise of service rather than dollar indemnity contracts.

In this program, the physicians enter into contracts with the subscribing public through the Blue Shield Program for the payment of a specified fee in full payment for their services rendered, providing the annual income of the individual or family is under a certain income level. These vary from state to state and, in some instances, there may be two or more income limits in each Plan. This type of service plan is similar to that adopted under the Medicare Program for the Dependents of Servicemen.

There has been a growing unrest on the part of organized labor because there are some states in which the service contract has not yet been established. In the areas where the service contract has been established, the income limits have been placed so low that they are of little value to their members. This resentment has continued to grow to the point that one can read almost daily in newspapers and labor publications of the growing demand for the availability of more and more medical care on a service contract basis.

Excerpts from two of the more recent articles point this out:

[2]"'BETTER' HEALTH INSURANCE PLANS GOAL OF UNION HEADS, LABOR NEWSPAPER DECLARES:" "At the recent annual meeting of the American Public Health Association, James Brindle, Director of the United Auto Workers' Social Security Department, noted that although labor unions differ on details of how medical care ought to be provided and financed, most of them have supported legislation to establish a national health insurance program.

"Since Congress has not enacted this legislation, all unions, because of their health and welfare funds gained through collective bargaining, have the task of making the best use of the dollars set aside for medical care.

"Labor has used these dollars to purchase mostly hospitalization coverage and surgical benefits from Blue Cross, Blue Shield, and commercial carriers. Some plans include home and office care but these are rare. In about fifty instances, labor groups have established direct service medical centers where services are actually provided rather than the cash indemnities to cover part of the costs.

"The latter type of plan has proven more popular with members because there are no

barriers to the service, preventive services are usually included in the benefits, and there are no hidden bills cropping up after the services are rendered.

"*Health insurance in the last twenty years* has had a phenomenal growth, mostly as a result of collective bargaining. Unfortunately, even at this date, the extent to which commonly available insurance programs meet a family's health needs is not very impressive to labor.

"*Among the causes for difficulties is the system* of indemnity payments for physicians' services which is not a satisfactory method of paying for services and is a basis upon which some physicians too frequently add substantial charges. Also, the emphasis on hospitalization and surgical coverage, as in the case of most plans without substantial out-patient benefits, is frequently a cause for unnecessary hospitalization.

"*Also as a result of inadequate concern* for operating efficiency in hospitals and an unwillingness to enforce legitimate controls, there are unjustified premium increases.

"*Labor is beginning to focus more* on the following objectives: (1) Complete pre-payment for medical care without co-insurance, deductible features, and hidden added costs. (2) Comprehensive benefits—only if the range of health services is complete will the individual's health needs be effectively and economically met. (3) Rational organization of medical services—on the basis of group practice, and (4) control of the quality of medical services which must be built into medical care plans."

We quote from the second article:

[3]"LABOR GRATEFUL TO SOME MD'S, AFL'S MEANY SAYS. George Meany, President of AFL-CIO, dedicated organized labor's new Medical Center Plan in Philadelphia on Saturday. Members of 28 union locals will be eligible for medical services at the center. In his prepared speech, Meany praised cooperation of participating doctors. 'We are fortunate that, despite the negative attitude of certain medical organizations, there are many doctors such as those who staff this center who are governed by the highest ideals of their profession, who sincerely want to find a way to bring better health care to more people, and who want to be part of a system that will enable them to practice the best medicine of which they are capable,' the speaker said."

One only begins to understand the significance of the attitudes being expressed when it is realized there are about 18 million members of organized labor. When the dependents are considered, it is found that there are some 55 million people represented. Also, that organized labor has at its disposal some 40 billion dollars in welfare funds to support its program. This 40 billion dollars is several billion more than has presently been accumulated in the Social Security funds by every working person since 1932.

Consumer Cooperative Group Practice

In 1946, representatives of the various consumer cooperative groups consumated the organization known as Cooperative Health Federation of America. By 1950, about 80 Consumer sponsored programs were in existence with members in more than half of the United States. To date, they have slightly in excess of one million members participating in this type of program. Again, the purpose was to maintain hospitals and hire physicians on a salary basis to provide care for their members, to the exclusion of community hopsitals and private practicing physicians.

It is important to note that the establishment of group practice creates many new problems. The primary problem is that the patient can only receive care in the local group practice organization. It is of no value to him if illness strikes while he is away from his local community. Also of concern is that it will ultimately defeat the private practice of medicine as it has been known in this country.

The Voluntary Effort of the People-Physician-Hospital Trustees

One of the greatest ideas created in the minds of free men and the one that has had the greatest impact on the mass of population was the idea that came from the mind of the late Justin Kimball, M.D. Doctor Kimball was Administrator of Baylor Hospital, Dallas, Texas. In cooperation with school teachers in his community, he cre-

ated a Plan whereby the teachers would set aside a small sum of money each month. The funds were used to pay for the health care needs of these teachers.

In the late 1930's, a group of interested hospital, medical, and public leaders asked the insurance industry to sit down and discuss the problem. The representatives of the insurance industry could give no aid or comfort to these economic problems of the hospitals, as health care was considered by most of the leaders of the insurance industry as not coming in the scope of insurance.

During the intervening years, the leadership of hospitals, physicians, and other health agencies have come to realize more than ever that health services cannot be considered as insurance. These early discussions met with a great deal of interest. Especially interested were the leaders of industry, Chambers of Commerce, farm organizations, leaders of organized labor, trustees of hospitals, and physicians.

The interest of these people was so great that the Rosenwald Foundation made a grant of $25,000, and Rufus Rorem, a young certified public accountant, was selected to conduct a survey to determine the interest and possibility of organizing a non-profit prepayment health care program in the local communities. The program would be directed by represntatives of the public, hospitals, and physicians in order that they might mutually arrive at the solution of financing health care.

Early discussions in the conventions of the American Medical Association and the American Hospital Association brought the idea to the local level of the state and county medical and hospital associations, and through the current magazines into the homes of individuals.

In Oklahoma, the citizens became vitally interested in the solution of health care problems. In the same manner, hospital trustees and physicians began to formulate their own plans for the organization of a prepayment program. Among these early prepayment pioneers in Oklahoma were many "grand old men" of medicine.

During 1938 and 1939, there were very few hospitals in Oklahoma since the development of the community hospitals was yet to come. However, those that existed were vitally interested.

From the discussions of a few dedicated people, representing the public, hospitals, and physicians, an organization named Group Hospital Service was incorporated April 1, 1940, under the laws of the State of Oklahoma. By the middle of 1940, this organization had met the standards required by the American Hospital Association to serve as a local Blue Cross Plan.

Since those early days, so much has been accomplished in Oklahoma that it would be impossible to relate all the achievements. However, a few of the most outstanding achievements should be mentioned.

In 1940, there were only 6,000 hospital beds which represented 2.61 beds per 1,000 persons of the population. By 1955, there were 7,000 beds; moreover, there are 1,500 beds under construction, which will make a total of 8,500 beds or 3.65 beds per 1,000 persons.

Today, there are non-profit community hospitals in about every community. There are 146 participating Blue Cross hospitals in Oklahoma. This great development in the availability of care has been made possible to a great extent by the stabilization of finances received by the hospitals through their contracts with the Blue Cross Plan. Today, approximately 20 per cent of the total hospital income is obtained from the people of Oklahoma through their organization, Blue Cross.

The terrible financial burden of hospital and surgical-medical care has been eliminated for a great number of Oklahomans. The cost of this care, which the people of the state has been spared, amounts to $61,345,955. (This amount was paid by Blue Cross and Blue Shield since their beginning through the year 1956.)

In 1940, Oklahoma boasted only a few physicians as compared to the 2,200 practicing physicians of today. This, too, has been partially made possible because of the ability of the people to pay for their care through an organization they helped to organize.

Group Hospital Service, a Mutual Cor-

poration, was incorporated under the provisions of Chapter 51, Article 14, Oklahoma Statutes of 1931. By the year 1949, the interest and enthusiasm in this organization had become so great that the people, through their legally-elected representatives in the Oklahoma State Legislature, passed an Act entitled, "House Bill Number 178." This Enabling Act established that a voluntary non-profit prepayment program was not insurance and would not be subject to the insurance laws of Oklahoma. Rather, it should be a non-profit prepayment program cooperating with all the health agencies of the state.

As a result of the rapid growth of Blue Cross, the physicians and civic leaders of the state began organizing a program for the purpose of providing medical, surgical, and orthopedic care. This program was incorporated under the provisions of Chapter 36, Oklahoma Statutes, 1941, Section 371 to 391. The name of this corporation was Oklahoma Physicians Service, a Mutual Corporation, and was incorporated on March 25, 1945. In 1949, this corporation also began operating under House Bill Number 178 (the Enabling Act). Oklahoma Physicians Service has served hand in hand with the hospital program, Blue Cross, and since its incorporation, has been a part of the nationwide program known as Blue Shield. It should be noted, however, that the Blue Shield Plan in Oklahoma has operated under an indemnity type program rather than a service program that has been adopted by the great majority of other areas of the United States.

At the same time these health care movements were forming in Oklahoma, the same activities were going on throughout the country. Today, every state in the nation and Alaska, Puerto Rico, and Canada have organizations serving the people at the local level through the democratic principle of freedom of choice by the public, doctors, and hospitals. The growth of these organizations has been called the fastest growing social movement in the history of the world. The physicians throughout the country testify as to their faith in this movement. For example, Elmer Hess, M.D., Past President of the American Medical Association, is very convincing in the following statement:

"Without Blue Shield and Blue Cross and other insurance programs our hospitals and ourselves would be hard put to render the services that these two organizations have made possible. Since we have accepted the insurance principle, many patients who previously would be non-paying patients have had their bills at least partially paid, and I am rather intolerant of the physician who is not a participating member of Blue Shield and who complains when Blue Shield pays the patient and not him directly. I also am intolerant of the physician who in defense of his attitude in not being a participating member says with a loud voice, 'Nobody is going to tell me what to charge,' I am outspoken enough to say the physician who takes such an attitude is primarily interested not in service but in money. Today's professional freedom to be a private practitioner of medicine instead of a slave of government is due solely to Blue Shield —the physicians' answer to socialized medicine. Forgive me if I offend, but sometimes the truth hurts, and I am so jealous of the good name and the freedom of our profession."

The following chart will stimulate the imagination as to the tremendous strides which have been accomplished in so few years in Blue Cross and Blue Shield Plans.

TOTAL MEMBERSHIP

	Blue Cross	*Blue Shield*
1945	19,416,747	1,826,719
1950	39,399,662	16,629,596
1957 (March 31)	54,588,704	39,736,640

During the many years of operation of the voluntary non-profit health programs, there have been many attempts to imitate the service concept of the Blue Cross and Blue Shield Plans. This is evidenced by the many companies that have attempted to influence the buying public through the use of names suggestive of the Plans, including White Cross, Blue Circle, Royal Blue, Green Cross etc.

Commercial Insurance Companies

The commercial insurance companies have attempted to imitate Blue Cross through their offering of dollar indemnity contracts. A careful analysis of the indemnity pro-

gram reveals the insurance companies are trading dollars for dollars, and, obviously, the purchaser is receiving fewer dollars in return than they put into the program in premiums. In too many cases, the amount the patient has paid over and above the dollars received is so great that it still represents a very great financial hazard.

The basic desire as expressed by the people through the Blue Cross and Blue Shield prepayment service Plans is that the people desire the means to purchase relief from pain and suffering—not dollars. The poultice of dollar bills is of little therapeutic value!

The Blue Cross and Blue Shield non-profit prepayment service programs operate as the agencies for the hospitals and doctors, enrolling people under a service benefit certificate. Through the Plans, the people are actually receiving the services of the hospitals and physicians—not an indemnity of limited dollars. Since it is hospital and doctors' services the people desire, the dollar indemnity approach can not satisfy this desire.

Recognizing the inability of the dollar indemnity approach to satisfy the basic desires of the people, the commercial insurance companies have designed a new approach known as "Major Medical." This program is designed to imitate the deductible approach similar to the automobile insurance companies, which is just another type of idemnity. In this program, the insured must assume the responsibility for the first dollars of care ranging from $50 to $500 or more.

Then, the insurance companies participate in the cost up to $5,000 or $10,000, depending on the contract purchased on a co-insurance basis of 75-25 or 80-20. This approach is so new that the experience is not yet sufficient to prove that it, too, is a blind alley in the attempt to satisfy the basic desire. This approach does not take into consideration several basic principles inherent in health care. The deductible of $50, $100, $300 or more in addition to the co-insurance is too great for the majority of the people.

The majority of the population still does not count health care costs in the budget. On the other hand, at the point where the deductible has been satisfied, there is no limit on the charge that can be made for the services except the maximum specified in the terms of the policy. If a pot of water is placed on the fire without a lid, the water will soon evaporate. If the cookie jar is put on the table without telling the children how many cookies they may have, the jar will soon be empty—even if the cookies make them ill. These truths being valid, the "Major Medical" approach can only result in increasing the cost of health care.

Even though the majority of the physicians are honest and honorable men, there are those among them who are subject to the human frailty. The urge to increase the charge when it is being paid by a third party is so great that the cost of providing benefits under the "Major Medical" concept will quickly become excessive.

Even the insurance companies' actuaries themselves attest to the inability to control the cost of the "Major Medical" Program as indicated by the following quotation from leaders in the insurance industry.

[5]"GROUP MAJOR MEDICAL COVER DANGERS DISCUSSED AT MEETING OF WEST COAST ACTUARIES: Dangers inherent in group major medical coverage were brought out in a discussion at the recent spring meeting of the Actuarial Club of the Pacific States at Pebble Beach, California. *It was pointed out* that in some instances the 75% or 80% payment of expenses merely constitutes an invitation to abuse. The most notable condition is the coverage of psychiatric treatment when not hospital-confined. Claim experience has clearly demonstrated that this coverage can not be insured on a conventional basis, and any payment for individual psychiatric treatment outside the hospital must be severely limited. *The co-insurance principle itself* is of little help in controlling of claims unless the total amount that must be paid by insured is so great that it will cause him to question his expenses as they are incurred and his bills as they are presented. *One company* indicated that its so-called basic major medical plans written without conventional hospital and surgical plans and with a deductible of $50 were returning unsatisfactory experience. As plans got closer

to full coverage of an illness, experience worsened, although theoretically adequate extras for the additional coverage had been included in the premium. *Major Medicals Plans* integrated with conventional hospital and surgical plans produced generally satisfactory experience. Serious inadequacies in existing rates were found in east Texas and southern California."

Another outstanding leader in the insurance industry, J. F. Follman, Jr., Director of Information and Research, Health Insurance Association of America, has this to say relative to the "Major Medical" concept: [6]"There is little question but that major medical and comprehensive insurance can result in a higher-fee-paying ability of the patient. It can result in the use of unnecessary or luxury forms of facilities and care. It can result in the over-utilization of medical facilities and, consequently, of the insurance."

Organized labor's representative, Jerome Pollack, Program Consultant, UAW Social Security Department, speaks very openly relative to his feelings concerning the effect of "Major Medical": [7]"The insurance has also been vigorously opposed and feared as an influence that could undermine health insurance by misdirecting its effort and critically inflating its cost . . . the insurance is without valid controls to prevent an unwarranted inflation in the cost of health care."

Another important factor effecting the economics of health is that in the State of Oklahoma, primarily a state of rural population, we have a great number of persons who cannot be reached by the insurance companies who offer a reasonably good coverage. For the companies who offer a reasonably good coverage always follow the practice of providing coverage only to the most select risks. This method would leave the majority of our people to the mercy of the more unscrupulous companies who offer only a very minimum of coverage at a very high premium rate. The State Insurance Department has on record over 700 insurance companies and more than 10,000 agents registered to sell hospitalization and surgical insurance in the State of Oklahoma alone. Annual premiums paid for health coverage by the people of Oklahoma during the year 1955 was $49,679,797.00. Add this to the cost of health care for which the people were required to purchase direct exclusive of coverage and the figure is astronomical.

So it would appear that in the insurance companies' approach that there can be no control of cost, and it is highly probable that the cost of care will rise sharply. As this occurs, the desire to protect the company's interest becomes so great that it results in the age-old practice of cancelling coverage. This, in many instances, leaves the people without coverage at a time it is most needed. The hospitals and physicians then must assume the financial burden for the care that their patients had attempted in the past to provide for themselves.

This practice resembles that of the old share crop system which was so prevalent in the South in early days, and the serf system that existed in the early colony days where one individual or family controlled the lives and well-being of a great many families who tilled the soil. If illness in some of the families prevented them from producing their share, the landowner had the power to remove them and leave them to shift for themselves without homes. There is an old legend that pretty well describes the insurance approach: One night in ancient times, three horsemen were riding across a desert. As they crossed the dry bed of a river, out of the darkness a voice called, "Halt." They obeyed. The voice then told them to dismount, pick up a handful of pebbles, put the pebbles in their pockets and remount. The voice then said, "You have done as I commanded. Tomorrow at sun-up you will be both glad and sorry." Mystified, the horsemen rode on. When the sun rose, they reached into their pockets and found that a miracle had happened. The pebbles had been transformed into diamonds, rubies, and other precious stones. The remembered the warning. They were both glad and sorry —glad they had taken some, and sorry they had not taken more. And this the story of insurance.

The legend graphically describes the mental attitude of the buying public in their experiences with all kinds of insurance. The

insurance industry, including the local agents, have done a magnificent job of providing coverage to reduce the hazards of risk taken by the individuals and groups for life, fire, theft, automobile, and other types of casualty insurance.

Many devious attempts have been made by the insurance industry to design a health insurance program. These attempts, for the most part, have created much confusion and have fallen short of the demands of the people. For in far too many instances, it has been necessary to continue with the legend of the three horsemen: That evening the horsemen took shelter in an inn to rest from their long journey. The following morning, they attempted to pay the inkeeper with the precious stones. The inkeeper examined them carefully and found them to be imitations of little value.

The problems confronting health care can not be solved in this manner. It requires the interest and cooperation of all the people in the local community. For without this, we are right back where we started—people crying for relief to a paternal government.

Government Participation

In The Hospital-Medical Fields

Almost everyone is aware of some of the activities of the federal government in the health field. Unfortunately, far too few are fully aware of the extent to which the government is today participating in the provision of hospital-medical care for the people of the United States. A great number of governmental agencies have become active in the development, construction, and maintenance of medical and hospital facilities. Most important of these are the Veterans' Administration, Defense Department, including Army, Navy, and Air Corps, and the Health, Education and Welfare Agency. It is interesting to know, for example, [8]that the federal government now has developed to date to the point of controlling 428 hospitals in 1955 with the staggering number of 183,162 beds, and requiring the services of 192,283 personnel. (These figures include the sum of full-time personnel plus full-time equivalents of part-time personnel, and excludes residents, interns, and students.) For the purpose of understanding what is happening in these fields, a review of only the more important ones are presented.

Public Welfare

One of the major issues facing the legislators of the various state governments at the present time is the development of a program for the recipients of public welfare on a matching funds basis with the federal government. This federal government program is participating to the extent of $3 per month per recipient of public welfare funds, old age assistance, aid for the blind, aid for dependent children, etc. The latest statistical information available shows there are 171,852 individuals who will be eligible for care under this program, involving approximately seven million dollars annually in Oklahoma. On a national basis, no one knows yet how many individuals will be ultimately eligible for care. Some estimates say between four and five million people. The eventual cost of this to the taxpayers of the country is not yet known, as all states have not yet taken action to participate in the matching funds program. For the fiscal period ending July 1, 1956,[9] the cost of governmental vendor medical programs was $200 million. The present Administration's budget estimates that the Federal Government's cost for this program will be increased by an additional $58 million in the 1958 fiscal year. On these minimum estimates, it is easy to see that this program will soon be costing the taxpayers many hundreds of millions of dollars.

Veterans' Administration

Recent years have seen the expansion of veterans' old hospitals and the construction of more and more new veterans' hospitals in every major population center in the nation.

This vast network of veterans' hospitals in 1957[10] number 173 with a total capacity of 121,031 beds, and an employment force of 114,123. The cost to the Veterans' Administration for the support of these facilities demands the appropriation for the year of 1957 of the staggering sum of $702,000,000 for in-patient care only.

These hospitals were built primarily for offering hospital and medical care for men with service-connected disabilities. A sec-

ondary provision gives care to veterans unable to pay for care in private facilities.

Today, these hospitals are full and in some cases have long waiting lists. Upon admission to the veterans' hospital, little or no attention is given as to whether the veteran is able to pay for the services rendered. This practice has grown so rapidly that the Hoover Commission emphasized these abusive practices in one of its reports.

Such flagrant disregard for the assumption of personal responsibility occurs if a set of circumstances continually repeats itself and as a result causes individuals to resent them and begin rationalizing and making excuses to justify their action. These circumstances have served as a stimuli to bring about this condition and are identical with those that occurred in the minds of the people who caused the development of voluntary prepayment for the relief of the financial intruder that existed between the patient and the doctor.

The armed forces maintained the very best of hospital and medical care for servicemen during World War II and the Korean conflict. This was rightly so. While in the service, the men were educated to the fact that they had access to the best of health care—and at no charge.

After these men and women were discharged and returned to their local communities, however, they faced the problem of paying for the cost of hospital and medical care. Eventually, the veteran remembered the care he received while in uniform and began to rationalize as to what a good "deal" he really had: complete health care at no cost. His rationalization led him to the realization that the same facilities were available to him in the veterans' hospital—and again, at no cost.

Today, Oklahoma Blue Cross and Blue Shield, with their 465,000 members (representing approximately 20 per cent of the state's population) receive many letters each month from members who are veterans. A typical letter states that the member is eligible for care in the veterans' hospitals. He informs the Plans he wants to drop his coverage but instructs the Plans to continue membership for his dependents.

It is understood that the powerful organizations representing the veterans are continually attempting to bring pressure on Congress to remove the statement of financial ability for admission to a veterans' hospital, even though little concern is given to it upon admisison today. However, once this is accomplished, the veteran will then be faced with only one remaining problem: how to obtain this same care for his dependents.

To begin to recognize the potent force behind these demands, one must realize that since the beginning of World War II, approximately 22 million men have served in the armed forces. These men, plus their dependents, add up to around 66 million people.

Medical Care for Dependents of Members of Uniformed Services

In 1956, Congress passed the Medical Care for the Dependents of Men of the Uniformed Services Act. This Bill was signed by the President on June 6, 1956. The Act provides that the dependents of personnel serving on active duty in any branch of the uniformed services shall be eligible for care in civilian facilities with the care to be rendered by private practicing physicians.

The provision of care for the dependents of uniformed services is not new. These dependents have been eligible for care in the facilities of the armed forces for a great many years. The approach, however, is new.

What brought this new approach about?

The Defense Department, because of the world situation, found it necessary to maintain a large military force for defense. The problems of retaining such a large number of men in the face of every-growing prosperity and the availability of high paying positions in industry, created an almost insurmountable problem in the retention of this force. One of the major problems confronted was the continual disturbance to the morale of the men because of health problems on the home front. Therefore, the officers responsible for maintenance of the defense force sought a solution to this morale problem. The program ultimately adopted was not the one originally intended for adoption.

There were three methods considered for

the solution of this problem:

1. The Doctors' Draft Bill was considered by the Congress to draft great numbers of civilian physicians to be placed in the armed forces facilities for the purpose of rendering care to the dependents of the men in the uniformed services.

The medical men of the country greatly objected to this approach. They said it was unreasonable that they should be drafted into the armed forces for the purpose of serving civilians they would normally care for at home in their local communities. Moreover, this approach was a threat to the private practicing physicians of medicine.

2. The second method was for the Defense Department to enter into contracts with group practice clinics and hospitals in each of the major communities of the United States to provided services for these dependents. This system was objected to strenuously for the same reason that such contracts would create an unfair monopolistic practice for such clinics and hospitals to the exclusion of the private practicing physicians and the community hospitals.
3. The third method came when someone was successful in obtaining considerateation for a system of permitting participation by the local private practicing physician and by each of the general hospitals in the local communities.

Immediately following the signing of the Act by Presidest Eisenhower, a committee of seven men was selected from the Blue Cross Plans across the nation, representing the Plans and the hospitals of the country, to work with the Task Force assigned to develop the hospital portion of this program.

Prior to December 7, 1956, the effective date of this Act, every state medical society with its administrative agent (which almost without exception was the Blue Shield Plan) met with the Task Force of the Defense Department to negotiate a contract for the cost of administration and the establishment of a schedule of fees that would serve as full payment for services rendered to the dependents of men in the armed forces.

No definite knowledge exists as to the exact number of dependents at the present time. There have been estimates, but the one which appears to be most reliable is 3,095,000. Likewise, the cost of rendering the care to these dependents has only been estimated. Although statistical data is not yet available, the most reliable estimate is $280,000,000, for the care of these dependents on an annual basis. One can only exercise his imagination in determining the number of dependents and the cost if the nation should again become engaged in a world conflict.

The significance of the approach of permitting private practicing physicians and community hospitals to participate in rendering care for these dependents on an agreed contract basis is without a doubt the most significant development is the evolution of the solutions of the problems of financing health care. Every conceivable effort must be made to make this approach work. If it should fail, then those responsible in government will have no alternative other than to turn their attention to the development of group practice—either in governmental facilities or the taking over of clinics and hospitals for providing care to these dependents. Should this occur, it might be established as the power for the development of care for all of the people in the United States who are already coming under the control of the federal government.

Summary of Government Participation in Health Costs

Of the estimated $14 billion[11] total medical bill of the nation, 24 per cent is borne by these various governments, often on a joint financing basis. The federal government in 1955 spent some $2 billion on disability allowances, $1.7 billion for operational services, $199 million for federal hospital construction, and $207 million for grants, of which $75 million were under the Hill-Burton Act and $41 million for research. Of all hospital beds in 1949, 71 per cent were furnished by government, although their use accounted for only 25.6 per cent of hospital admissions, since duration of stay in government hospitals is longer, due in part to care for long term chronic and mental illnesses.

The federal government has undertaken a large measure of responsibility with respect to the entire population and specific responsibility for all or part of the medical care of over 30 million persons (not including totally and permanently disabled OASI beneficiaries over age 50 now eligible but whose numbers are not yet known). About four million are entitled to complete medical care. These include active duty military personnel, indigent Indians, Merchant Seamen, Coast Guard personnel, Federal prisoners, detained aliens, drug addicts, lepers, and others. Three and one half million veterans are entitled to complete care for service connected disabilities.

Over 20 million are eligible on a facilities available basis; these being mostly veterans, dependents of military personnel, and retired military personnel. Additionally, 5.1 million persons receive public assistance under state programs (some of them federally aided) and these persons receive medical care. Ten per cent of all active physicians, 9 per cent of dentists, and 6 per cent of graduate nurses are employed by the Federal Government. In 1953, $152 million of medical supplies was purchased by the Federal Government.

[12]The ever growing demand for the relief from the economic problems of health care are graphically demonstrated in the number of Bills presented to the Congress.

In the 82nd Congress (1951-1952), there were 250 such Bills. In the 83rd Congress (1953-1954), there were 407, and in the 84th Congress (1955-1956), there were 570 Bills presented.

This brief resumé of government approaches to the problem of medical care and its financing in the United States would seem to indicate rather clearly this fact. To the degree non-governmental means cannot or do not provide for the costs of medical care, government is prepared to assume—directly, through taxation; indirectly through compulsory employer-employee contribution; or both—or designate—usually the employer—the responsibility to the end that there shall be adequate medical care for all.

Conclusion

As has been previously stated, it would appear that the great majority of men and women who are supposed to be the opinion leaders of our committees have been laboring under the delusion that federal control of medicine is a forgotten issue. Such is not the case. It is hoped that this review of the circumstances and developments that have occurred since the sowing of the seed in the minds of the masses of the people to solve the uncontrolled problems of the financing of health care will also move them to include health care in their budgeting for the day-to-day necessities.

By reviewing these facts, it becomes increasingly certain that the seed sowed in the minds of the people of this country has been most productive, and the potent force that has been created out of this idea will not be stopped. It is entirely possible and, indeed, probable, that within the next four to eight years, definite action will be taken to provide health services to all the people of this country under the control of federal government. One needs only to recall that this subject has been a major issue in the last three presidential elections to verify this conclusion.

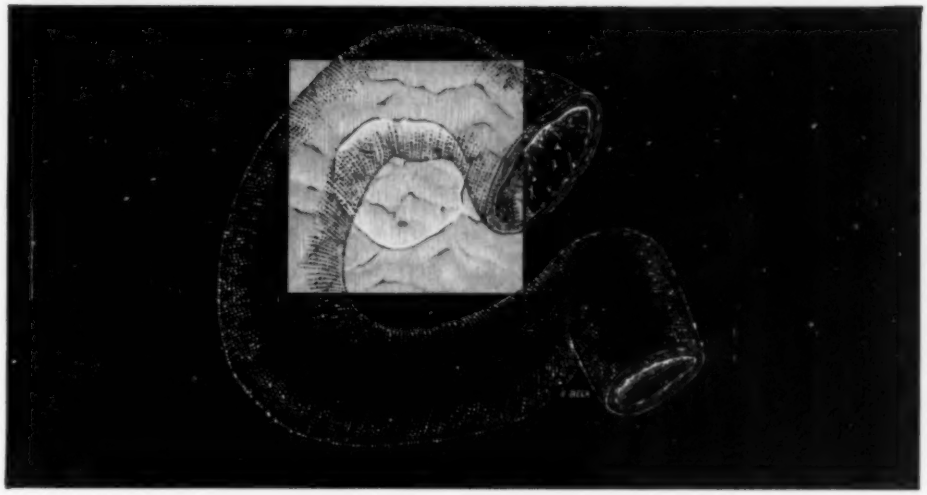
It would appear that these potent forces have developed to the point that there is only one possible alternative: for the people in the local communities to join forces with members of the medical profession and representatives of the community hospitals and arrive at positive and harmonious agreements to the solutions of the problems of financing health care.

This article is reprinted in full from the manuscript supplied by the Blue Cross-Blue Shield Plans, representing the view of the author, Mr. Bethel.

REFERENCES

1. Blue Shield Commission Enrollment Report, Second Quarter, 1957.
2. *Taylor Publications, Insurance Digest* (article taken from "Labor Union" of December 28, 1956.)
3. *Washington Report on the Medical Sciences*, February 18, 1957.
4. Address before American Medical Association Meeting in Seattle, Washington, November 27 and 30, 1956.
5. *National Underwriter*, June 20, 1957.
6. Follmann, Jr., *Spectator*, March, 1957.
7. *American Journal of Public Health*, Vol. 47, No. 3, March, 1957.
8. *Hospitals' Magazine*, August 1, 1956, Guide Issue, Part II, pages 8, 21, and 34 (American Hospital Association).
9. *Washington Report on the Medical Sciences*, February 18, 1957.
10. Supplement, Veterans' Administration Statistical Summary Monthly Report, February, 1957, page 90.
11. Follmann, Jr., *Spectator*, March 1957.
12. Congressional Records.

RELIEVES THE GNAWING ACHE



Pro-Banthine® provides rapid control of pain in peptic ulcer

In a two-year study[1] by Lichstein and co-workers, documented by intensive personal observation and by follow-up studies, Pro-Banthine (brand of propantheline bromide) often brought immediate relief of ulcer pain. Patients (11 per cent) who did not respond satisfactorily to Pro-Banthine therapy had "anxiety manifestations of psychoneurotic proportions."

In addition to frequent immediate symptomatic relief, Pro-Banthine reduces gastrointestinal motility and diminishes the secretion and acidity of gastric juice, all-important factors in the generation and aggravation of peptic ulcer.

These actions of Pro-Banthine and its demonstrated effectiveness in accelerating ulcer healing[2-5] mark the drug as a most valuable adjunct in the treatment of peptic ulcer.

The suggested initial dosage is one 15-mg. tablet with meals and two tablets at bedtime. An increased dosage may be necessary for severe manifestations and then two or more tablets four times a day may be prescribed.

G. D. Searle & Co., Chicago 80, Illinois.
Research in the Service of Medicine.

---

1. Lichstein, J.; Morehouse, M. G., and Osmon, K. L.: Am. J. M. Sc. *232*:156 (Aug.) 1956.
2. Sun, D. C. H., and Shay, H.: Arch. Int. Med. *97*:442 (April) 1956.
3. Rafsky, H. A.; Fein, H. D.; Breslaw, L., and Rafsky, J. C.: Gastroenterology *27*:21 (July) 1954.
4. Schwartz, I. R.; Lehman, E.; Ostrove, R., and Seibel, J. M.: Gastroenterology *25*:416 (Nov.) 1953.
5. Silver, H. M.; Pucci, H., and Almy, T. P.: New England J. Med. *252*:520 (March 31) 1955.

SEARLE

PRESIDENT'S LETTER

Recently I received a request from Doctor Mark Everett, Dean of the School of Medicine of Oklahoma University. This request was in regard to the appointment of a Liaison Committee from the State Medical Association to confer and advise with the faculty of the Medical School. I was most pleased to receive this request because it embodies an approach to the development of our Medical School that I have long advocated.

The Medical School is an integral part of Oklahoma University. It does not belong to the faculty; it does not belong to the medical profession, but it does belong to the citizens of our glorious State. Its purposes are manifold, but in my opinion, its chief purpose is the preparation of young men and women to go out and render good professional medical care to the people of Oklahoma.

The State Medical Association can render service to the Medical School in many ways, but its foremost offering would be that of counseling the faculty in the training of young doctors in the care of sick people. I feel that not only our School but many other medical schools today have become so engrossed in scientific discoveries and research, the teaching of medicine as an abstract science and the impersonal approach to an illness as just another scientific problem, that the finished product is a most highly educated person but with very little practical "know how." This is then a most forward step on the part of the Medical School and it is certainly a challenge to our Medical Association to render constructive service.

John Black Barton, M.D.

President

Association Activities

O.U. Medical School Receives $135,403

The Oklahoma University School of Medicine has received $135,403 in grants from the National Foundation for Medical Education during the past seven years according to a statement recently released through the office of the dean. These monies included contributions made to the American Education Fund, which channeled its funds through the NFME until this year.

The American Medical Education Foundation was organized and sponsored by the American Medical Association in 1951 to seek financial contributions in behalf of the medical schools. The medical profession's annual goal is $2,000,000 and this sum is needed in addition to funds contributed annually from other sources. Together with contributions from industry through the NFME, the AMEF grants go to meet the annual $10,000,000 operational deficit of the nation's medical schools.

Although the fund grants are unrestricted, the school has used them entirely for the support of the instructional program, as can be seen from the following breakdown:

Salaries for faculty members	$ 81,038
Salaries for technical assistants	17,226
Development of teaching departments and recruitment of needed faculty members	14,387
Teaching and laboratory equipment	11,694
Attendance of faculty members at scientific meetings and conferences important to the school	4,240
Support of professional meetings at the Medical Center	1,961
Remodeling of teaching facilities	857
Unexpended funds	5,000
TOTAL	$135,403

Contributions made by physicians to the A.M.E.F. are tax deductible and may be given to either the General Fund or earmarked for a specific school. The American Medical Education Foundation is located at 535 North Dearborn, Chicago 10, Illinois.

Voluntary Health Insurance Coverage Reaches New High

The number of people in Oklahoma who are covered by voluntary health insurance reached a new high by July 1, the Health Insurance Council reported recently. The Council estimates that nearly 1,250,000 persons were protected by some form of insurance designed to help pay hospital and doctor bills.

This figure, the Council said, is part of the continued growth of health insurance throughout the country, which was revealed last May in its 11th annual survey of the extent of voluntary health insurance coverage for 1956. The number of people covered by some form of health insurance in the nation today is more than 118 million, or over 70% of the U.S. civilian population.

In releasing the findings of its survey, which is based on reports of insurance programs of insurance companies, Blue Cross-Blue Shield and other health care plans, the Council went on to say that there were 1,181,000 persons covered by hospital expense insurance in Oklahoma as of December 31, 1956. The total for 1955 of the number of persons covered for expenses incurred while in the hospital was 1,042,000.

Surgical expense insurance, which helps to defray the cost of physicians' charges for operations rose to 1,098,000, as compared with 936,000 the year before.

Persons protected by regular medical expense insurance, providing for doctor visits for non-surgical care, numbered 747,000 in 1956, as against the previous year's figure of 647,000.

The Health Insurance Council, which is a federation of eight insurance associations representing over 90% of the accident and health insurance business handled by insurance companies, stated that this growth reflects the desire of the people of Oklahoma to help protect themselves against the cost of accident and illness.

'Weight-Reducing' Medicines Under Congressional Attack

"Weight-reducing" medicine for sale over-the-counter at drug stores are under attack at a House subcommittee hearing, which to date has produced no testimony in defense of these products. It is a subcommittee of the House Government Operations Committee, under chairmanship of Rep. John Blatnik (D., Minn.) which is attemping to show that advertising claims for the preparations are in many cases misleading and fradulent.

Dr. S. William Kalb of Newark, N. J., stressed that weight could be reduced only by cutting the caloric intake to the point where less was being eaten than the body was using up. The products at issue, he said, were at best an aid or "crutch" to the overweight person, and at worse represented a danger by possibly introducing drugs or other substances that might be injurious to the particular patient. His solution would be to remove all such products from the over-the-counter status, restricting their sale to physicians' prescriptions. In effect this would end their use in most cases because physicians wouldn't prescribe them, in his opinion.

Dr. Leon Hirsh of Cincinnati, who has written and done research on obesity, agreed with Doctor Kalb that the preparations should be restricted to prescription. He said most of them are worthless and harmless, but that those containing phenylpropanalomine are a potential danger as they could cause coronary attacks or cerebral hemorrhage in certain individuals.

Maye A. Russ, head of the National Better Business Bureau's food, drug and cosmetic division said the trouble was caused by a minority of irresponsible manufacturers who exploit a gullible public. She explained that the bureau screens advertising on request, and asks manufacturers to withdraw questionable copy voluntarily. If they refuse, the cases are referred to appropriate federal or state authorities for prosecution. She listed nine criteria used by the bureau to establish that claims are deceptive, then, speaking specifically of items in the drug field, declared:

"The advertising of so-called obesity remedies or weight-reducing products is an area fraught with deception and outright fraud. This field is a particularly fertile one for unscrupulous advertisers, in view of the millions of overweight people and published medical data concerning the higher incidence of heart disease, high blood pressure, diabetes, etc., among the overweight. According to our information, none of the known products available for over-the-counter sale will, in themselves, cause a reduction in weight. This can be achieved only by reducing the caloric intake in relation to maintenance requirements."

Post office officials said the profit from quackery in sale of these and other preparations runs into hundreds of millions of dollars a year. The post office department indicated its staff of three men assigned to such investigations "can only hit the high spots," although 300 to 500 cases a year are investigated.

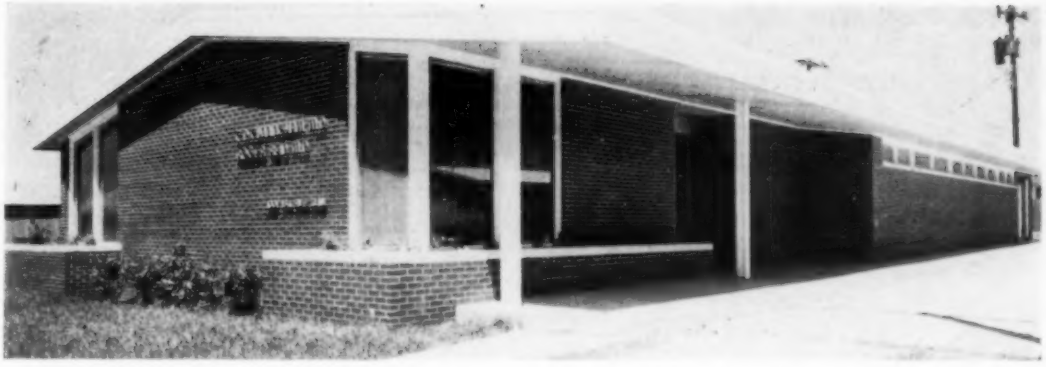
Dr. Hess Appointed Chairman National Advisory Committee To Selective Service

The President has appointed Dr. Elmer Hess of Erie, Pennsylvania, Chairman of the National Advisory Committee to the Selective Service System.

Doctor Hess has also been appointed Chairman of the Health Resources Advisory Committee to the Office of Defense Mobilization Executive Office of the President as announced recently by Gordon Gray, Director of the Office of Defense Mobilization.

In both these capacities Doctor Hess will replace Dr. Howard A. Rusk who resigned.

Doctor Hess is well known as a leader in American medicine. Among other positions he has held are the presidencies of the American Medical Association and the American Urological Association. Doctor Hess served as a Captain in the Army Medical Corps in World War I and is at present overseas consultant for the U. S. Air Force.



Ardmore Physicians Open New Office Building

Two Ardmore physicians, C. D. Cunningham and Roger Reid, have recently moved into their new offices, pictured above. The brick and steel structure which contains 4,500 square feet is conveniently located near the Memorial Hospital of that city.

Features of the building include a large waiting room, five examining rooms for each physician, recovery room, nurses' and receptionists' lounge and a business office which is adjacent to the waiting room. Unique are the laboratory and x-ray facilities which form a central island, accessible from either side. One end of the building is devoted to a private staff and ambulance entrance, leading to an emergency room.

The building was designed by architects Joe Kennedy, Jr. and Associates and constructed by J. A. George and the Devon Construction Company.

The Journal invites photographs and descriptive information from other recently completed medical buildings. Photographs should be 8 x 10 glossy prints.

Second Councilor District To Hold Annual Meeting at Cushing

The traditional Annual Meeting of the Second Councilor District of the Oklahoma State Medical Association will be held September 17 in the Hotel Cushing, it was announced recently by J. Murphree, M.D., Vice-Councilor.

Dr. West, Dr. Turner Present At Groundbreaking Ceremonies

W. Kelly West, M.D., and Henry H. Turner, M.D., both of Oklahoma City were present at the recent groundbreaking ceremonies for the new Southern Medical Association headquarters building in Birmingham, Alabama. Doctor West is President-Elect of the Association, and Doctor Turner serves on the Home Building Finance Committee and the Executive Committee.

J. P. Culpepper, Jr., M.D., President of the Southern Medical Association presided at the ceremonies in which Doctor West and Dr. Milford O. Rouse, First Vice-President in line of succession, Dallas, took part along with ten members of the Council.

Actual construction of the building was scheduled to get under way several days later with occupancy of the building expected by not later than March 14, 1958. The building is being paid for by contributions from friends of the Association. The Association had in its reserve sufficient funds for the purchase of the lot, $50,000. There will be needed somewhere between $150,000 and $175,000 to complete the building. Sufficient contributions have been received to get the building underway; however, much more will be needed. It is hoped that by the time the building is complete friends of the Association will have contributed sufficiently to complete the payment of it. Contributions are deductible for federal income tax purposes and should be sent to C. P. Loranz, Secretary, Home Building Finance Committee, 1020 Empire Building, Brimingham 3, Alabama.

Doctor Draft Law Expires; New Legislation Provided For Specialists' Services

Amendments to the Universal Military Training and Service Act, as amended, adopted in June 1957, replace the former "Doctor Draft" law and provide for meeting the requirements of the Armed Forces for medical, dental, and allied specialists until July 1, 1959. Under the new amendments only those specialists who are otherwise liable as regular registrants are subject to induction under the Selective Service Law.

The old "Doctor Draft" law under which medical, dental, and allied specialists had been liable since 1950 expired July 1, 1957. It had placed liability for service on older doctors, dentists, and allied specialists, at one time up to the age of 51.

One of the principal effects of the new amendments to the basic Selective Service law is to limit liability of doctors, dentists, and allied specialists to age 35 for those deferred on or after June 19, 1951; and to age 26 for others. Public Law 85-62, which amends the basic Selective Service law with respect to these specialists, was signed by the President on June 27, 1957. By placing medical, dental and allied specialists under the same provisions of law and regulations as other registrants with respect to the upper limit of the age of liability, the 1957 amendments relieve from liability under the Universal Military Training and Service Act, as amended, any such specialist over the age of 32 on the date the amendments became effective—July 1, 1957. This is true because in order to have acquired extended liability under the June 19, 1951, amendments, a registrant must not only have been deferred on or after that date, but also must have attained the 26th anniversary of his birth by that date. Any man who was 26 on June 19, 1951, would, on July 1, 1957, have been 32 years old.

The amendments in addition provide that:

(1) No person in the medical, dental, and allied specialist categories shall be inducted if he applies for an appointment as a Reserve officer and is or has been rejected for such an appointment on the sole ground of physical disqualification.

(2) The President may order to active duty for not more than 24 consecutive months any member of a Reserve component who is such a specialist, who is under 35, and who has not performed at least one year of active duty in the Armed Forces.

(3) Any such person called or ordered to active duty from a Reserve component of the Armed Forces and who serves on active duty as a specialist for 12 months or more, shall upon release from active duty or within six months after release, be given an opportunity to resign the commission unless he is otherwise obligated to serve on active training and service in the Armed Forces or in training in a Reserve component by law or contract.

(4) Any physician or dentist qualified for a Reserve commission shall, so long as a need for his service exists, be given an opportunity to volunteer for active duty of not less than 24 months.

(5) The President may prescribe rules and regulations for the selection or induction of persons by age group or groups and for the selection and induction of persons qualified in needed medical, dental, or allied specialist categories pursuant to requisitions submitted by the Secretary of Defense.

(6) Qualified specialist aliens liable for induction shall not be held ineligible for appointment as commissioned officers solely on the grounds that such alien specialists are not citizens or have not declared their intention of becoming citizens.

(7) Any qualified person who is liable for induction, or who is ordered to active duty as a member of a Reserve component as a physician, or a dentist, or in an allied specialist category, shall be appointed, reappointed, or promoted to such grade or rank as may be commensurate with his professional education, experience, or ability provided that any person in a needed medical dental, or allied specialist category who fails to qualify for, or who does not accept, a commission, or whose commission has been terminated, may be used in his professional capacity in an enlisted grade.

(8) Periods of active duty performed by

such specialists in student programs prior to receipt of appropriate professional degree or in intern training shall not be counted toward establishing the qualification of such specialists for classification as a veteran exempt from liability for training and service.

(9) It is the sense of Congress that the President provide for deferment of optometry students and premedical, preosteopathic, preveterinary, preoptometry, and predental students in numbers at least equal to the numbers of such male students now studying in colleges and universities.

(10) Public Law 62, 85th Congress, amending the Universal Military Training and Service Act, as amended, to provide service liability for persons in medical, dental, and allied specialist categories, expires on July 1, 1959.

With the expiration of the requirement for special registration of medical, dental, and allied specialists, such specialists under the amendments of June 27, 1957, should notify their local boards within ten days of the attainment of degrees in these fields.

Gains in Longevity Since 1900

Continued progress in the control of disease has greatly extended the average length of life in the United States. Under mortality conditions prevailing around 1900, the expectation of life at birth was not quite 50 years. By 1930, the figure had risen to about 60 years; in 1955, the lastest available, it was 69.5 years. Thus, about 20 years have been added to the expected life-time since the turn of the century. In 1955, as in earlier years, white females had the best record for longevity. Their expectation of life at birth was 73.6 years, compared with 67.3 years for white males; corresponding figures for the nonwhite population were 65.9 years and 61.2 years, respectively.

The increases in expectation of life have been largest in infancy and childhood, but notable gains have also been made at the adult ages. Since 1900-02 the expectation of life at age 25 has increased seven years among white men and 11 years among white women; at age 45 the corresponding gains have been three years and six and one-half years.

In recent decades, females have enjoyed a lower mortality than males at every period of life. In fact, the death rate among white females is now less than two per 1,000 in the age range one through 39 years and remains under 10 per 1,000 through age 58. For white males, the mortality during childhood and early adult life has also declined to very low levels. Nevertheless, over much of the life span the death rate among males is more than one and one-half times that for females. Around the age of majority, when the sex difference in mortality is at a maximum, the ratio is nearly three to one.

Coincident with the reductions in mortality during the present century, the chances of survival from birth to the adult ages have increased markedly. According to mortality conditions in 1900-02, 24 per cent of newborn white males and 21 per cent of the white females failed to survive to their 20th birthday; currently, only three or four per cent are likely to die before that age.

The success achieved in preventing premature death has also greatly improved the outlook for survival through the productive years of life. The chances that a white man will survive from age 20 to age 65 have increased from 514 per 1,000 in 1900-02 to 686 per 1,000 in 1955. Although the gains decrease progressively with advance in age, more than three fourths of those who now attain age 50 can expect to reach normal retirement age.

The prospects of survival for females have improved so much that women have now better than four chances in five of living to see all their children reach maturity. In fact, survival to age 65 is more likely for women at age 20 than for men who have passed their 55th birthday.

The expected lifetime beyond age 65 has also been extended somewhat since 1900. For white men, the chances of living an additional 10 years have increased from 545 per 1,000 to 605 per 1,000. Moreover, the expectation of life for men who attain age 75 is now fully eight years; for white women it is 9.2 years.

Southeastern Oklahoma Clinical Symposium Held in McAlester

Under the sponsorship of the McAlester Clinical Foundation the Southeastern Oklahoma Clinical Symposium was held at the Aldridge Hotel in McAlester, August 10 and 11.

Saturday evening the guests were entertained at a dinner-dance at the McAlester Country Club and golf and fishing were made available to all those who wanted outside exercise. Registration for the meeting was 124.

John Flack Burton, M.D., President of the Oklahoma State Medical Association addressed the group at the Sunday afternoon session. Doctor Burton spoke to the group on the recently revised "Code of Medical Ethics" adopted by the House of Delegates of the American Medical Association at the 1957 Annual Meeting in New York City.

A.M.A. Studies Chemical Laws

A hodge-podge of state and federal laws regulating the labeling of hazardous chemicals and the need for a uniform chemical law recently were revealed by the American Medical Association study. Sponsored jointly by the A.M.A.'s Committee on Toxicology and Law Department, the study was made in preparation for drafting a model chemical labeling law. A conference of interested representatives of government, industry and medicine will be called this fall to draft a model law which then can be submitted to legislative bodies.

The proposed legislation is intended to reduce careless and ignorant handling of potentially harmful products in and around the home, small business and other areas where control of over-exposure to chemicals is not as efficient as in the manufacturing process. This law will require informative labeling, including listing of possible harmful ingredients, their potentialities for danger, directions for safe use and first-aid instructions.

Oklahoma City Clinical Society Schedules 27th Annual Meeting

The Oklahoma City Clinical Society will open it's twenty-seventh annual three day conference at the Biltmore Hotel on October 28, 1957.

An outstanding program of postgraduate teaching has been arranged. This includes lectures and discussions by fifteen distinguished guest speakers selected from various medical and teaching centers throughout the nation. In addition to the general assemblies there will be specialty lectures, a clinical pathologic conference, and daily luncheon roundtable question and answer sessions.

The entertainment will include a banquet on Monday evening at which time the Oklahoma County Medical Society will be host to the guest lecturers and out-of-town doctors. Kenneth McFarland, Ph.D., of Topeka, Kansas, nationally known lecturer and entertainer will be the principal speaker at this banquet. On Tuesday evening, there will be a social hour followed by nine specialty group dinners, and on Wednesday evening, to climax the three day conference, the annual dinner-dance sponsored by the Oklahoma City Chamber of Commerce will be held.

The Conference has been approved for credit under category I by the American Academy of General Practice. Registration fee for Association Members is $20.00 which includes all features of the meeting.

The Clinical Society officers are: Herman Fagin, M.D., President; Charles Hugh Wilson, M.D., Director of Clinics; Ralph A. Smith, M.D., Vice-President; Vernon D. Cushing, M.D., Secretary; and Thomas C. Points, M.D., Treasurer.

A cordial invitation is extended to all physicians who are members of their County Medical Societies to attend this meeting from October 28th through October 30th.

For further information write Mrs. Alma O'Donnell, 503 Medical Arts Bldg., Oklahoma City.

A.M.A. Suggested Guides To Relationships Between Medical Societies and Voluntary Health Agencies

Voluntary health agencies are an American institution. They have developed within the past half century. Starting with the National Tuberculosis Association in 1904, the agencies at the national, state and local level, devoted wholly or in part to health promotion, are now numbered in the hundreds.

Physicians and medical societies, concerned as they are with the diagnosis and treatment of disease and the promotion of health, are expected by the public to support these many voluntary efforts. Each agency strives for medical approval and wants to count physicians among its members.

Nature of Voluntary Health Agencies

Agencies concerned with health vary widely in organization, objectives, means for attaining objectives, fund raising methods, membership, and relationship of groups at national, state and local levels. However, even with these variations, not infrequently, their likenesses are more notable than their differences. Their principal characteristics are:

1. A voluntary, nongovernmental association of citizens, with
2. A common goal or interest, usually the prevention and control of some disease or infirmity, which
3. Gathers voluntary contributions, gifts, memorials, and memberships, and
4. Expends its resources in ways decided by the governing body of the agency, most often for public and professional education, medical and basic science research, and in a number of instances the underwriting of medical care.

The kinds of community agencies interested in health, including the voluntary health agency can be classified into the following types.

1. The local subsidiary of a national agency concerned with a single disease condition which uses its funds primarily for health education of the public, possibly for research and in some instances, to provide medical care. Examples of such organizations are the National Tuberculosis Association, the American Cancer Society and the National Foundation for Infantile Paralysis.

2. The local subsidiaries of national agencies concerned with a certain group of people having common problems which may be the result of a variety of related diseases. Among these are such agencies as the National Society for Crippled Children and Adults and the National Association for Mental Health.

3. Local subsidiaries of national organizations whose primary interest is civic betterment but who from time to time become interested in preventive medicine or provide medical care for specific short term problems. Among these are the national civic organizations such as Rotary, Lions and Kiwanis, business groups such as the Chamber of Commerce, academic fraternities and sororities, and women's organizations.

4. Locally organized groups, which may or may not be affiliated with a national program or agency, such as the auxiliary groups supporting local hospitals or clinics, infant welfare societies, local health councils, and social agencies in the fields of family welfare, adoptive placements, family counseling and various youth activities.

5. Community coordinating groups such as welfare councils, health councils, community chests and similar groups engaged in community planning, in administrative research and in the distribution of money gathered through federated giving.

The larger and better known voluntary health agencies have now become an accepted part of our culture. They have made available contributions to education and research. Many of the smaller, more recently developed agencies are equally reliable and at least as valuable. However, even though these agencies have medical direction at the national and state level and are accepted by the medical associations at these levels, an effort must me made toward mutual understanding at the local level including medical direction.

Voluntary Agency Evaluation

The medical society is dedicated to maintenance of health in the communities its

members serve. It, therefore, has an interest in and an implied responsibility for citizen groups who profess a similar dedication. Any agency that collects dues and contributions so that it may conduct health education, research, and service for the prevention of disease and the rehabilitation of the crippled, therefore, becomes an object for medical society consideration.

The medical society approach to any agency should be friendly, since these agencies intend to promote health through support of sound medical practice. It should also be constructively critical, since occasionally uninformed enthusiasts can make mistakes which distort even well planned policy. The evaluation that a local medical society makes of a local voluntary agency must answer at least the following questions.

1. What relation does the local voluntary agency have to a similar state or national agency? Is it a subsidiary chapter, affiliate or independent competitor?

2. Why was it started in this community? Who started it and what interests are promoting it?

3. Are the purposes and stated objectives of the agency desirable, in conformity with those of the parent agency, medically justifiable, and possible of attainment by the program proposed by the agency?

4. Does the agency respect local customs for collecting money in the drive for memberships and contributions?

5. Is the fund goal realistic when related to community needs and the anticipated overall program of the agency at the local, state, and national levels?

6. Is the cost of fund raising and administration comparable to similar expenses of other agencies in the community and reasonable in relation to expenditures for the stated objectives?

7. Are the educational and promotional materials medically correct, ethically presented, in good taste and educationally sound?

8. Can the expenditures allocated for research be justified by local disease problems as well as by national research needs?

9. How are expenditures for service related to local needs for such service and to the established community programs for medical care?

Medical Society Obligation to Voluntary Agencies

Most voluntary health agencies warrant medical society participation and support of their policies. In the interests of enlisting public support for the promotion of health, medical societies have an obligation to help agencies conform to good practice. Most voluntary health agencies would be more susceptible to modification of their practices by participation, support, and advice from the county medical society than to adverse criticism and opposition. Medical societies may offer assistance in many ways, among which are:

1. Arrange liaison by making available medical society representation on the governing board of the voluntary health agency.

2. Make available an advisory service to the agency on policy and practice decisions that involve matters relating to medicine or physicians.

3. Cooperate with the agency in planning its program in relation to community health needs and evaluation of how well those needs are being met.

4. Encourage medical society members to stimulate public support of the agency and its program.

Voluntary Agency Obligation to the Medical Society

Every voluntary health agency, or organization concerned with matters of medical care and health promotion has certain obligations to the community in which it operates and to the physicians and their medical society who provide the health service in that community. To enjoy the confidence of the medical society and merit its continuing support, voluntary health agencies need to meet certain obligations, among which are:

1. Its basic policies regarding medical care and preventive medicine should conform with the policies and practices acceptable to the medical profession in that particular community.

2. The governing board of the voluntary agency should in all instances provide an opportunity for representation of the medical profession designated by the county medical society.

3. Problems involving medical policy and practice should be considered in consultation with appropriate medical society committees.

4. The program of the agency, including the collection and disbursement of its funds, should conform to community custom, be related to the community's needs, and the overall program of the agency at the local, state, and national level.

The Role of Physicians in Relation to Voluntary Health Agencies

The individual physician plays four separate but related roles when he becomes affiliated with a voluntary health agency or other voluntary organization concerned with a phase of preventive medicine or medical care.

1. He may be delegated as an official representative of his medical association, in which case he acts for the medical society expressing the consensus of his colleagues.

2. He may be called on by an agency to serve it as a physician in ways suggested by his specific professional interest.

3. Because of his interests, he may seek membership on his own accord and become active in an agency's program.

4. As a private citizen interested in his community, and regardless of his profession, he may use a health agency as the medium for public service.

The obligations of these roles are quite different. It is therefore imperative that both the physician and the voluntary health agency he is serving recognize the particular role being played. The representative of a medical society designated to serve as an official channel of communication has a different status than a private physician serving an agency as an individual. A physician selected by a voluntary agency to serve on its board, has no authority to speak for the local medical society unless granted that authority by action of the medical society.

This point is quite confusing to agencies who are not acquainted with interagency representation. Physicians who are close to interagency personnel should explain that though physician membership on a board of directors is desirable and is to be encouraged, such members do not represent the medical society unless they have been named by the medical society as its official spokesman.

All voluntary health agencies depend on membership dues and voluntary contributions. They also must have contributed time of volunteer workers interested in promoting the agency's objectives. Since the community looks to physicians for endorsement of a health agency, the physician is obligated to speak well of an agency whenever possible. He also will feel obligated to support with time and money those agencies in which he has personal interest.

Summary:

1. The voluntary health agency is now a recognized community function, and most agencies merit medical society support of their objectives, though the medical society, in some instances, might press for changes in policy or procedure.

2. Medical societies and voluntary health agencies have mutual obligations. Medical societies should participate and when desired give agencies advice and counsel on the medical and civic aspects of community needs. Voluntary health agencies should establish liaison with the medical society and frame their programs to conform to sound medical practice.

3. Physicians should support voluntary health agencies within their sphere of interest, and recognize whether their role is as official representative of the medical society, interested physician, or private citizen.

1957 Medical Journal Conference To Be Held in Chicago

The annual State Medical Journal Conference will be held Monday and Tuesday, October 28 and 29, 1957, in Chicago.

Dr. Everett M. George is Chairman of the Conference, said that the daytime sessions will be held in the A.M.A. headquarters building with the evening session scheduled for the Boulevard Room of the Sheraton Hotel.

91 Senior Medical Students Take State Exams

Ninety-one senior medical students from the University of Oklahoma's School of Medicine took the examinations before the Board of Medical Examiners on June 11 and 12, 1957.

Those taking the examinations were: Gerald William Boles, John William Hood, Howard Barton Keith, Sherman Allen Hope, Richard Franklin Barbee, George John Shibley, Lloyd Glenn McArthur, Billy Joe Bird, Cecil Ray Stansberry, Jr., Bradley Egerton Smith, Orville Alton Rinn, Floyd Edmond Webb, Jr., Frederick Lou Lang, Jacob Paul Reimer, Harry J. Kearns, Jr., John Edward Talley, Lloyd Melvin Hummer, Paul Neeley Vann, George Robert Cornelius, Rodney Dwight Steward, James Thomas Payte, Benjamin J. Lambiotte, Jr., Kenneth Hugh Bagwell, John Andrew Orbin.

Others in the group were: Winfred Louis Medcalf, Gene Richard Smith, Daniel Joseph Sprehe, Donald Morris Phillips, William Orlando Smith, Bryce Owen Bliss, Barbara Foster Braden, Loren Kent Yates, Donald Kent Braden, Ivan Doyle Siddons, John Leif Ritan, Jack L. Coats, Wilson Ervin Durham, Charles Reiff Brown, David Lee Mackler, John Richard Smith, James Douglas Green, Richard Bard Johnson, Floyd T. Hubbard, Paul Rupert O'Bar, Wanda Lorraine Watkins, King Graham Price, George Norman Haddad, Jr., Maurice Lyle Peter, Jr., Robert Francis Peterson, John Clarence Burr, Ralph Richard Markland, William Lee Savage, Robert Arnold Honea, Don Lee Dycus, William Lee Parker, Fred Richard Martin, Charles Leslie Nickolls, Howard Lavern Nash, James Otto Morse, Thomas Neil Vaughn, Samuel Maxie Davis, Jack McKinely Stephenson, Lee Hunter Riley, Jr., Elta Howard Jayne, Charles Joseph Gebetsberger, Oliver William Jones, Jr., Roger Ray Paul, Thomas Allen Goodman, Paul Sullivan Holley, Willard Charles Kennedy, Bernard Joseph Dolenz, Chester Lee Bynum, Robert Keith Ellis, Wayne Franklin White.

Completing the list were: David Eugene Livingston, Victor Ray Neal, Avery Paul Compton, John M. Kalbfleisch, William Lyon Hughes, Thomas Watson Thurston, Horace Ellis Hewett, Sammy Harry Kouri, Riley W. Park, Jr., Harold Harvey Mings, Kenneth Dean Meinhardt, Philip Greenwood Walters, Jerry Wayne Sullivan, Charles Watson Robinson, Jr., Tracy LeNeil Kobs, James Allen Crabtree, and Delbert Hugh McGinnis.

Dr. Melvin E. Griffith Visiting in Norman

Dr. Melvin E. Griffith, a malariologist from Norman, Oklahoma, has returned to the United States on home leave, after spending a total of six years in Thailand. Doctor Griffith and his wife reached their home in Norman in August and return to Thailand in September.

A graduate of the University of Kansas with a Ph.D., Doctor Griffith is on assignment with the International Cooperation Administration, the agency responsible for the Mutual Security Program. Before going to Thailand, Doctor Griffith, a commissioned officer of the U. S. Public Health Service, served as State Malaria Control Entomologist with the Oklahoma State Department of Health and Professor of Entomology and Public Health at the University of Oklahoma.

As chief malaria advisor in Thailand, Doctor Griffith's job is to advise and assist the Thai Ministry of Public Health in planning, developing and coordinating an effective program which will ultimately end in the eradication, control or prevention of malaria and other vector-born diseases.

Doctor Griffith feels that more benefits have resulted from the malaria program than just the successful reduction of the disease. "The program has helped to generate a greater health consciousness, not only in Government circles, but throughout the country. It has also made a contribution towards developing the new concept of villagers joining in a cooperative effort and a common goal—to help improve the general welfare for all."

Mrs. Griffith has also spent a productive six years in Thailand. A trained medical technologist, Mrs. Griffith has given considerable time to the Women's Hospital in Bangkok and to special technical English instruction for medical students and participants scheduled to go to the United States for study.

Sears-Roebuck Plan Blocked By Internal Revenue

A study currently being made by the Internal Revenue Service has caused Sears-Roebuck officials to temporarily suspend their financial assistance program for the establishment of medical facilities. Since February, the program has been under study by the government agency to determine if it is a proper charitable activity.

For the past two years, the American Medical Association has cooperated with the Sears-Roebuck Foundation in this program which is designed to fill the gap in providing improved medical care where there is the greatest need. The Foundation makes an annual grant of $125,000 which is placed in a revolving fund and made available in the form of unsecured loans to physicians desiring to establish practices or to improve existing facilities. Under the program, physicians may receive loans in amounts up to $25,000. The primary objective is to improve services and facilities in surburban and rural areas. Several of the loans have been made in Oklahoma.

Officials are confident of a favorable ruling from the Internal Revenue Service but found the suspension necessary in view of the indecisive element.

O.S.M.A. Members Assist

Several members of the Oklahoma State Medical Association assisted in the annual Farm Home Conference held recently on the campus of Oklahoma State University, Stillwater, by conducting sessions on various phases of medicine.

Participating on the program were: William Schottsteadt, M.D., A. A. Hellams, M.D., William B. Thompson, M.D., Harold G. Sleeper, M.D., all of Oklahoma City; T. A. Ragan, M.D., Charles A. Smith, M.D., both of Norman; T. H. McCarley, M.D., of McAlester and A. M. Brown, Jr. of Perry.

A recent study of physicians's records at the Executive Office reveals that approximately 5% of the O.S.M.A. membership is over 80 years old. Sixty-six physicians are between eighty and ninety and four have passed the ninety mark.

Have You Heard?

W. H. McBRAYER M.D., of Idabel celebrated his eighty-sixth birthday in August. Doctor McBrayer has been practicing in Oklahoma 57 years.

Membership in the Tulsa County Medical Society has reached a new high of 336, according to President G. R. RUSSELL, M.D.

ELLIS LAMB, M.D., of Clinton was recently awarded a 50-year membership pin by his local Masonic Lodge.

MALCOLM E. PHELPS, M.D., El Reno, visited in Fort Knox, Kentucky, recently where he inspected the Ireland general hospital and an educational program for doctors. Doctor Phelps made the trip at the request of Major General Cyrus W. Hayes, surgeon-general of the army who appointed Doctor Phelps a special consultant.

BARYLE HENWOOD, M.D., formerly of Tulsa, has moved to Collinsville where he plans to enter practice with PAUL HERRWAGEN, M.D.

H. IRELAND STEFFEN, M.D., and his wife, formerly of Oklahoma City, have recently established a home in Enid.

SHELBY GAMBLE, M.D., medical director of the rehabilitation center at Oklahoma A&M in Okmulgee, served as an area consultant in physical medicine and rehabilitation for the Veterans Administration hospitals in Colorado August 1 through 13.

PAUL L. MASTERS, M.D., of Del City was admitted to Mercy Hospital August 12 with an acute virus infection. Doctor Masters' confinement in the hospital was not expected to be a lengthy one.

ROBERT N. SAYLOR, M.D., recently assumed duties as medical officer in charge of the U. S. Public Health Service Indian hospital in Lawton. Doctor Saylor was transferred from the U. S. Public Health Service Indian Hospital in Shawnee.

A. S. NUCKOLS, M.D., Mrs. Nuckols and their 13-year-old daughter, Sue, recently returned to their home in Ponca City from an 18,000-mile vacation. The trip took them sight-seeing across the western states, Mexico, Canada, Alaska and Hawaii.

V stands for—greater antibiotic ab
blood levels · faster broad-spectrum ac

ACHRO

is a new and superior form of AC
widely prescribed broad-spectrum ant
in the treatment of more than 5C
ACHROMYCIN V Capsules are rap
practically twice the absorption in
oral broad-spectrum th

ACHROMYCIN V is now available in—**CAPSULES.** (Pink) 250 mg., 100 mg. (tetracycline HCl equivalents, phosphate-buffered.) **SYRUP.** Each teaspoonful (5 cc.) of orange-flavored syrup contains 125 mg. of tetracycline HCl activity, phosphate-buffered. **LIQUID PEDIATRIC DROPS.** Each cc. (20 drops) contains 100 mg. of tetracycline HCl activity, phosphate-buffered. (Approx. 5 mg. per drop). Orange Flavor. Plastic dropper-type bottle of 10 cc.

ACHR
REM
*Reg. U.S.
LEDERL

absorption · earlier therapeutic action

MYCIN* V

Tetracycline Buffered with Phosphate

ACHROMYCIN* Tetracycline—the antibiotic, noted for its effectiveness 50 different infections. New rapid-acting, offer an average of in half the time—unsurpassed therapy.

ACHROMYCIN V dosage: 6-7 mg. per lb. of body weight per day for children and adults.

REMEMBER THE V WHEN SPECIFYING ACHROMYCIN V

*Reg. U.S. Pat. Off.

LEDERLE LABORATORIES DIVISION, AMERICAN CYANAMID COMPANY, PEARL RIVER, NEW YORK

Book Reviews

Handbook of Pediatric Medical Emergencies. Second edition, 1956, DeSanctis and Varga. Leatherette cover. Pp. 389, $6.25. Published by C. V. Mosby Company.

The form of the second edition of this popular book follows very closely the form of the first edition (1951), with the addition of chapters on Metabolic Emergencies, Accident and Poison Prevention, Genitourinary Emergencies and Respiratory Paralysis in Poliomyelitis.

The continued popularity of this book is virtually assured by reason of its contents as suggested in the title. However, as one reads through the various sections one realizes the author's dilemma in preparing a book of this type. As he stated in the preface to the first edition he was continually faced with the choice of presenting therapy only or of presenting a review of signs and symptoms of the rarer emergencies, thereby facilitating their earlier diagnosis.

In a handbook like this, deviations from generally accepted rationale or technic always make one wonder whether brevity is at fault or newer concepts are being introduced. Most of the time, the reviewer had the impression that much was again being carried over from the older standard texts. As examples we might cite the recommended reliance on subcutaneous fluids in severe dehydration (p. 54); the removal of only a small definite amount of fluid (10-12 cc) with each subdural tap (p. 116); the use of intrathecal penicillin in meningitis (p. 102); use of 25 per cent glucose intravenously in asthma (p. 130); the use of the Universal Antidote in unknown poisoning (p. 294) and the recommendation that dilatations in lye ingestion "should be started on the fourth day" (p. 307).

Regarding the use of penicillin, one wonders if new information is contained in the statement that "penicillin in high dosage has also been shown to be of substantial value" in Primary Atypical Pneumonia (p. 131) or that penicillin should be used for its *bacteriostatic* effect on the "streptococcus which lives saprophytically with the diphtheria" (p. 122).

Certain aspects of emergency care are conspicuous by their absence, such as the actual technic of tracheotomy tube care, although the usual statement that the patency of the tube should be maintained is made.

The book in general serves the purpose of a Handbook very well. It contains hundreds of detailed facts and dosages that are always a comfort to have near. As a source of this factual material it can be well recommended.—*T. R. Pfundt, M.D.*

The Care of the Expectant Mother. Josephine Barnes, M.M., F.R.C.S. (England). Fabric binding, $7.50. Pp. 270, Copyright 1957. Published by Philosophical Library, 15 East 40th St., New York 16, N.Y.

An English author has compiled the outline for the care of obstetrical patients intended for use by the specialist in the field or by the general practitioner to whom such care is entrusted.

The manuscript is divided into three major sections: one on normal pregnancy, one on abnormal pregnancy, and the last on diseases complicating pregnancy. Portions of the information include availability of maternity services in Britain, which while being helpful to the British, makes dull reading for an American.

The management of such complications as the hypertensive pregnant patient is briefly treated and many useful drugs are rather hastily dismissed as of having little value. Many indications for interruption of pregnancy are mentioned so frequently as to lead one to assume this to be common practice.

Causes of malpresentations are presented in a usable outline, though the work by Stevenson in pointing out the importance of the location of the placenta is not taken into consideration.

The chapter on antepartum hemorrhage where septic abortion is discussed, suggests that curettage is never done in such cases, a statement which is usually good advice, but certainly not always the best course. If one carried out some of the author's indications for induction of labor in this country he would be severely criticised.—*Dixon N. Burns, M.D.*

FILM GUIDE *For* PROGRAM CHAIRMEN

Listed below are some of the 16 mm. scientific films available from the American Medical Association Motion Picture Library. The films are available on loan (Service charge basis) to medical societies, hospitals and other scientific groups.

Requests should be made to: Motion Picture Library, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

At least two weeks prior to showing should be allowed for delivery. If the service charge (which includes transportation to user) is to be paid by an institution, a purchase order should accompany the request. The charges are for a two day period and users are urged to return the films immediately after use. They should be returned prepaid and insured for the amount specified on the confirmation.

ANATOMY AND PHYSIOLOGY

A.M.A. No. — *SERVICE CHARGE*

53 THE ANATOMY OF THE ARM, FOREARM, AND THE HAND (1945-48) $4.00

Silent, color, 1,350 feet, showing time 56 minutes. Prepared by Daniel P. Quiring, Ph.D., and Erna L. Boroush, Cleveland Clinic Foundation.

Illustrates the gross anatomic features of a systematic dissection of the arm of a cadaver.

54 THE ANATOMY OF THE LEG AND FOOT (1945-48) $5.00

Silent, color, 2,000 feet, showing time 83 minutes. Prepared by Daniel P. Quiring, Ph.D., and John H. Warfel, Ph.D., Cleveland Clinic Foundation.

Illustrates the gross anatomic features of a systematic dissection of the leg and foot.

55 THE ANATOMY OF THE PERINEUM (1945-48) $2.00

Silent, color, 700 feet, showing time 29 minutes. Prepared by Daniel P. Quiring, Ph.D., and Earl L. Lewis, M.Sc., Cleveland Clinic Foundation.

Presents the gross anatomic features of a systematic dissection of the male perineum in the cadaver.

81 BLOOD STREAMS IN THE BASILAR ARTERY (1949) $1.50

Color, sound, 228 feet, showing time 9 minutes. Produced in collaboration with the Department of Physiology, St. Bartholomew's Hospital Medical College, London.

This film demonstrates the hydrodynamics of blood-flow in the basilar artery under varying conditions.

119 THE BRONCHOPULMONARY SEGMENTS PART 1: ANATOMY AND BRONCHOSCOPY (1955) $1.00

Color, sound, 1120 feet, showing time 31 minutes. Prepared by Chevalier L. Jackson, M.D., John F. Huber, M.D. and Charles M. Norris, M.D., Philadelphia. Produced for Pfizer Laboratories by Campus Film Productions, New York.

Defines the bronchopulmonary segments and demonstrates the anatomy of the 18 segments of greatest clinical importance by means of specimens and models. The segmental anatomy concept is related to bronchoscopy by combining oil paintings of bronchoscopic views with models of the clinically important individual segments and groups of segments. The film concludes with cine-endography of the normal bronchi so that the viewer, in effect, looks through the bronchoscope with the endoscopist.

46 FUNCTIONAL ANATOMY OF THE HAND (1951) $1.50

Color, sound, 1,119 feet, showing time 28 minutes. Prepared by the Department of Anatomy, Duke University, Durham, N.C.

This film graphically depicts normal function of the muscles of the hand and forearm as well as the relation of the muscles to the skeletal structure.

105 PHASE MICROSCOPY OF NORMAL LIVING BLOOD CELLS (1954) $3.00

Sound, 985 feet, showing time 27 minutes. Prepared by Richard J. Blandau, M.D., Quinn B. deMarsh, M.D. and Paul Ralph, Ph.D., Department of Anatomy, School of Medicine, University of Washington.

Compares the various circulating blood cells, including the blood platelets and red blood cells, as they appear in a Wright's stained preparation and in the living state when examined with the dark medium contrast phase objectives.

122 PRINCIPLES OF RESPIRATORY MECHANICS. PART 1 (1954) $1.00

Sound, color, 797 feet, showing time 22 minutes. Prepared by Department of Physiology Harvard School of Public Health under a grant from the National Foundation for Infantile Paralysis.

This film illustrates the mechanical behavior of the lungs in normal and pathological states. Using animated drawings and both normal subjects and patients with respiratory conditions,

this film deals with such basic concepts as elastic and resistive properties of the lungs, pressure-volume relationships. Of interest to physicians, medical students, graduate nurses, physical therapists, occupational therapists.

121 STREAMLINE FLOW IN THE VEINS (1954) $2.00

Color, sound, 361 feet, showing time 10 minutes. Demonstrated by Dr. D. A. McDonald, St. Bartholomew's Hospital Medical College, London. Produced by the Wellcome Film Unit, London.

Streamlined and turbulent flow are demonstrated in a glass model. Reynold's formula giving the critical conditions for the change from one type of flow to another is discussed. By means of dye injected into tributary veins, the type of flow at different points in the rabbit vena cava and portal venous system is observed.

113 WILLIAM HARVEY AND THE CIRCULATION OF THE BLOOD (1928) $3.00

Silent, 1,144 feet, showing time 48 minutes. Technical Advisors: Sir Thomas Lewis and Sir Henry Dale. Sponsored by Royal College of Physicians, London.

Reproduces dissections and experiments from William Harvey's "Exercitatio Anatomica de Motu Cordis et Sanguinis" (1628). Through experiments with vessels of the extremity, Harvey demonstrates artery-vein continuity and the function of venous valves.

ANESTHESIOLOGY

114 DISASTER ANESTHESIA (1952) $4.00

Color, sound, 1,233 feet, showing time 35 minutes. Produced by Scientific Film Company, Berwyn, Ill. Sponsored by University of Illinois College of Medicine, Department of Anesthesia.

This is a civil defense training film for teaching dentists and physicians to act as anesthesists for emergency duty in case of disaster. A technic is shown for administering general anesthesia safely and efficiently to huge groups of injured people with improvised equipment and shelter.

1 DYNAMICS OF RESPIRATION (1938 revised 1944) $3.00

Color, silent, 942 feet, showing time 40 minutes. Prepared by the Departments of Anesthesia, Radiology and Photography, University of Wisconsin Medical School, Madison.

Shows normal respiration, respiration in various stages of anesthesia and in different pathologic conditions.

28 PEDIATRIC ANESTHESIA (1944) $2.00

Color, silent, 921 feet, showing time 38 minutes. Prepared by Dr. M. Digby Leigh, Department of Anesthesia, Children's Memorial Hospital, Montreal, Que.

For use in demonstrating the technic of anesthesia in children and includes the respiratory and eye manifestations of the stages of anesthesia. Especially recommended for experienced anesthesists.

2 REGIONAL ANESTHESIA FOR OPERATIONS ON THE NECK (1938) $1.00

Silent, 400 feet, showing time 15 minutes. Prepared by Dr. Ralph M. Tovell, Section on Anesthesia, Mayo Clinic, Rochester.

6 THE ROLE OF CARBON DIOXIDE IN CONVULSIONS DURING ANESTHESIA (1942) $1.00

Silent, 225 feet, showing time 7 minutes. Prepared by Departments of Anesthesia, Radiology and Photography, University of Wisconsin Medical School, Madison.

Demonstrates anesthetic methods and complications. Illustrates effects of carbon dioxide under certain circumstances.

3 SIGNS OF INHALATION ANESTHESIA (1938) $2.00

Silent, 600 feet, showing time 25 minutes. Prepared by Dr. Henry S. Ruth and Dr. J. Harvey Sigafoos, Department of Anesthesia, Hahnemann Hospital, Philadelphia.

Details of signs of inhalation anesthesia with charts presented by Dr. Arthur E. Guedal, Los Angeles. Illustrations of stages and planes of anesthesia.

4 TECHNIC OF BLOCKING SACRAL NERVE (1938) $1.00

Silent, 400 feet, showing time 15 minutes. Prepared by the Section on Anesthesia, Mayo Clinic, Rochester.

5 THE TECHNIC OF CARBON DIOXIDE ABSORPTION IN ANESTHETIC ATMOSPHERES (1938) $2.00

Silent, 800 feet, showing time 30 minutes. Prepared by the Department of Anesthesia and Photography, University of Wisconsin Medical School, Madison.

CARDIOVASCULAR

131 ACTION OF THE HUMAN HEART VALVES (1955) $2.00

Color, sound, 861 feet, showing time 24 minutes. Prepared by Karl P. Klassen, M.D. and Charles V. Meckstroth, M.D., Columbus, Ohio.

The action of normal and abnormal human heart valves is simulated by mounting the fresh postmortem heart and reproducing inflow and outflow pressures of the atria and ventricles within physiological limits. All four valves are depicted. Altered function as well as surgical correction of congenital and acquired valvular lesions is demonstrated.

25 ANGINA PECTORIS (1942) $4.00

Color, sound, 3,200 feet, showing time 1½ hours. Prepared by Dr. Joseph E. F. Riseman, Boston.

A summary of objective studies. Part I: Clinical Characteristics. Part II: Physiology. Part III: Pathology. Part IV: Treatment. Includes

illustrations of anatomical preparations. Demonstrates measurements of physical activity in evaluating status of this condition and its treatment.

78 CONGENITAL MALFORMATIONS OF THE HEART

Color, sound. Prepared by Robert F. Rushmer, M.D., and Richard J. Blandau, M.D., University of Washington, Seattle. Produced by the Department of Medical Illustration, University of Washington.

Part I. Development of the Normal Heart (1952) $3.00

553 feet, showing time 15 minutes. Presents the embryological development of the heart, first showing stages in development of the heart in the living chick embryo and secondly the morphological development of the heart and the internal development from the single chambered embryonic heart to the four chambered adult heart. The development of the spiral system in the conus arteriosus and formation of the interatrial septum with closure of the foramen ovale are also shown.

Part II. Acyanotic Congenital Heart Disease (1952) $3.00

487 feet, showing time 14 minutes. Shows a number of patients with congenital cardiac defect involving an abnormal movement of blood from the aortic system into the pulmonary system, particularly persistence of the ductus arteriosus. The principles upon which a differential diagnosis can be made are presented with the aid of animation and cinefluororadiographs. Recordings of heart sounds are included.

Part III. Cyanotic Congenital Heart Disease (1953) $3.00

1,025 feet, showing time 28 minutes. Presents the embryology, origin, and the functional significance of congenital malformations of the heart which produce cyanosis.

82 FUNCTION OF THE MITRAL VALVE IN SITU (1952) $2.00

Color, sound, 484 feet, showing time 13 minutes. Prepared by Adrian Kantrowitz, M.D., and Elliott S. Hurwitt, M.D., Montefiore Hospital, New York.

This film demonstrates the action of the mitral valve in the anesthetized dog under conditions that do not depart in any too important sense from normal. The demonstration is well organized and the observer is kept well oriented throughout the discussion by means of diagrams.

115 VIDECLINIC: CORONARY ARTERY DISEASE (1955) $3.00

Sound, 3,800 feet, showing time 1 hour and 47 minutes. Produced by the Smith, Kline and French Medical Television Unit.

This film is a Kinescope of a program which was presented on closed circuit television February 9, 1955. Videclinic participants from New York, Boston, Cleveland, Chicago and Minneapolis and New Orleans discuss the management of coronary artery disease.

NEOPLASMS

76 CANCER OF THE THYROID GLAND—TREATMENT OF A CASE BY RADIOACTIVE IODINE (1947) $1.50

Color, sound, 250 feet, showing time 7 minutes. Produced for the American Medical Association by Audio Productions, Inc., New York. Photographed at and supervised by the Memorial Center for Cancer and Allied Diseases, New York.

This film shows the diagnosis and management of a case of carcinoma of the thyroid with metastasis to the hip and its treatment with radioactive iodine.

38 EXAMINATION OF THE BREAST FOR EARLY CANCER (1948) $3.00

Color, sound, 590 feet, showing time 20 minutes. Produced for the State of California Department of Public Health and the California Medical Association Cancer Commission.

Portrayal of methods used in physical examination of patients to determine cancer of the breast.

39 MOLES AND MELANOMA (1945) $1.50

Color, sound, 350 feet, showing time 8 minutes. Prepared by Bureau of Medicine and Surgery, U. S. Navy.

The structure and skin cells of benign and cancerous moles are illustrated by animation. Shows the ineffective results with improper removal of a mole and the procedures that insure good results.

95 ORAL CANCER: THE PROBLEM OF EARLY DIAGNOSIS (1953) $2.00

Sound, color, 1,131 feet, showing time 32 minutes. Sponsored by American Cancer Society and National Cancer Institute.

Clinical material illustrates early lesions of the tongue, floor of the mouth, gingiva, cheek, palate, and lip. The technique of biopsy and the method of thorough oral examinations are illustrated.

80 SOME ASPECTS OF ACCESSIBLE CANCERS—RECTUM (1951) $3.00

Sound, 884 feet, showing time 24 minutes. Produced for the Ministry of Health by the Realist Film Unit, London. Principal advisors: The Royal Cancer Hospital, Westminster Hospital and St. Marks Hospital. Made under the general supervision of Sir Standford Cade, F.R.C.S., Malcolm Donaldson, F.R.C.S., and Dr. G. F. Stebbing.

Grounds for suspicion of cancer of the rectum and diagnostic procedures for several cases are

shown. The British method of performing a combined abdominal perineal excision of the rectum is presented.

79 SOME ASPECTS OF ACCESSIBLE CANCERS—SKIN (1951) $3.00

Sound, 1,030 feet, showing time 29 minutes. Produced for the Ministry of Health by the Realist Film Unit, London. Principal advisors: The Royal Cancer Hospital, Westminster Hospital, Middlesex Hospital and Mt. Vernon Hospital and Radium Institute. Made under the general supervision of Sir Stanford Cade, F.R.C.S., Malcolm Donaldson, F.R.C.S., and Dr. G. F. Stebbing.

Portrays skin cancer in all its forms and locations with emphasis on the technics of examination. Treatment by radiation and surgery is demonstrated. Patients are shown before and after treatment.

NEUROLOGY AND PSYCHIATRY

65 INTRODUCTION TO APHASIA (1950) $3.00

Color, sound, 1,125 feet, showing time 31 minutes. Prepared by the Department of Medicine and Surgery, Veterans Administration. J. M. Nielsen, M.D., technical advisor.

Presents an overall definition of aphasia and implements this definition by animated diagrams of the neuroanatomy involved. It explains and presents actual typical cases of each form of aphasia.

120 VIDECLINIC: MIND AND MEDICINE (1955) $3.00

Sound, 1,650 feet, showing time 45 minutes. Produced by Smith, Kline and French Medical Television Unit.

The problems and the latest weapons developed to fight mental illness are outlined. It covers first, the research aspects of mental illness, including the use of lysergic acid to produce symptoms in normal and abnormal people for study purposes; second, the dramatic use of drugs in the treatment of mental disease, and also reports on the "open ward" system and "therapeutic communities" from Belgium and England.

OBSTETRICS

94 MANUAL ROTATION IN THE MANAGEMENT OF OCCIPUT POSTERIOR AND OCCIPUT TRANSVERSE POSITIONS (1943) $4.00

Silent, color, 1,100 feet, showing time 32 minutes. Directed by H. J. Holloway, M.D., and E. S. Burge, M.D., Northwestern University.

Position diagnosis, manual rotation of occiput to an anterior position, forceps application and extraction for each of the posterior and transverse positions are explained and illustrated first on a manikin, then by actual delivery.

OPTHALMALOGY AND OTORHINOLARYNGOLOGY

57 BRONCHOSCOPIC CLINIC IN KODACHROME (1949) $5.00

Silent, color, 1100 feet, showing time 30 minutes (run at 24 frams per second.) Prepared by Paul H. Holinger, M.D., Kenneth C. Johnston, M.D., and Frank J. Novak, III, M.D., Departments of Otolaryngology and Broncho-esophagology, St. Luke's Hospital and University of Illinois.

Portrays the value of, and the indications for, bronchoscopy in the study of diseases involving the tracheobronchial tree, and demonstrates the bronchoscopic appearance of a variety of such lesions.

132 EMBRYOLOGY OF THE EAR (1955)

Color, sound. Presented by the American Academy of Ophthalmology and Otolaryngology with the cooperation of George W. Bartelmez, Ph.D., Carnegie Institute of Washington and Franz Altman, M.D., Columbia University, New York.

PART I. THE INNER EAR $5.00
1080 feet, showing time 30 minutes.

Demonstrates that the ear can be divided into three parts: External, middle and inner ear. The demonstration continues on the inner ear, the otic labyrinth, the otic capsule and the periotic labyrinth.

PART II. THE MIDDLE EAR $5.00
990 feet, showing time 27 minutes.

Deals with the middle ear and the external ear.

PART III. BLOOD VESSELS—ARTERIES $5.00
1188 feet, showing time 33 minutes.

Discusses the blood vessels, arteries, veins, and ends with a summary of the entire subject.

61 EMBRYOLOGY OF THE EYE (1950) $3.00

Color, sound, 1550 feet, showing time 43 minutes. Prepared by the American Academy of Ophthalmology and Otolaryngology. George W. Corner, M.D., director and Gordon K. Smelser, Ph.D., technnical consultant.

A general picture of the development of the ocular structures. Part I deals with the development of the early stages; Part II the later stages. The last portion of Part II shows the stages consecutively and summarizes all the tissues and their changes.

134 THE EVALUATION OF HEARING IN PRESCHOOL CHILDREN WHO LACK NORMAL SPEECH (1954) $3.00

Color, sound, 1010 feet, showing time 28 minutes. Prepared by Hollie E. McHugh, M.D., and R. Hall McCoy, M.D., Department of Otolaryngology. Children's Memorial Hospital, McGill University.

Presents the problems in the diagnosis of children impaired in communication, and some diagnostic procedures. With the use of diagrams and patients, it presents rather clearly the diagnostic possibilities with relation to the disorders shown.

84 GLAUCOMA: WHAT THE GENERAL PRACTITIONER SHOULD KNOW (1951)---$3.00

Color, sound, 825 feet, showing time 22 minutes. Prepared by National Society for the Prevention of Blindness.

This film has been made to bring home to the general practitioner the high incidence of blindness due to glaucoma so that he will be on the watch for signs and symptoms of its existence in his patients, to show him how to recognize these signs and symptoms and to point out the necessity of referring such patients to an ophthalmologist for a definite diagnosis and treatment.

104 THE STRUCTURE AND FUNCTION OF THE VESTIBULAR APPARATUS (1954)---$3.00

Color, sound, 749 feet, showing time 20 minutes. Prepared by Richard J. Blandau, M.D. and Newton B. Everett, Ph.D., Department of Anatomy, University of Washington.

Presents the gross and microscopic anatomy of the human utricle, saccule and semi-circular canals. The way in which these structures respond to stimuli resulting from alterations of the body's orientation in space or to a change in deceleration or acceleration is demonstrated by means of animated drawings.

ORTHOPEDICS

93 PRINCIPLES OF FRACTURE REDUCTION (1953)---$3.00

Color, sound, 1,077 feet, showing time 30 minutes. Produced by Churchill Wexler Productions, Los Angeles, for the Veterans Administration.

This film shows such principles as: early reduction, neutralization of displacing muscle pulls, counter-traction, suspension, etc., and shows application of principles to the reduction of fractures in a farmhouse situation where modern equipment is not available.

29 SCIATIC PAIN AND THE INTERVERTEBRAL DISC---$1.50

Color, sound, 920 feet, showing time 26 minutes. Prepared for the Bureau of Medicine and Surgery, U.S. Navy

This film clearly demonstrates, in a fresh specimen, the function of the disc. It describes the parts of the disc and visualizes the pressure and distortions. A proper examination of a patient is presented and the classical signs and symptoms are demonstrated. The two types of treatment, conservative and operative are also demonstrated.

117 SURGICAL APPROACHES TO JOINTS OF THE WRIST (1951)---$3.00

Color, sound, 1192 feet, showing time 33 minutes. Prepared by LeRoy Abbott, University of California for the Veterans Administration.

Animated diagrams depict the bones, ligaments, muscles, tendons and neurovascular structures with which the surgeon deals in various approaches to the wrist. The sections on anatomy are followed by operations employing approaches to the volar, radiovolar, ulnar and dorsal aspects.

118 SURGICAL APPROACHES TO THE ELBOW JOINT (1950)---$3.00

Color, sound, 1360 feet, 37 minutes. Prepared by LeRoy Abbott, University of California for the Veterans Administration.

Shows the approach from Anteolateral, lateral and posterial angles. Animation and live action show each step of three operations.

90 SURGICAL APPROACHES TO THE HIP JOINT (1951)---$3.00

Color, sound, 1260 feet, showing time 30 minutes. Prepared by LeRoy Abbott, University of California, for the Veterans Administration.

Animated diagrams show the anatomy of the anterior and posterior aspects of the hip joint. Operations employing approaches to the antero-lateral, straight lateral and postero-lateral aspects of the joint are shown. Each is recapitulated in animation.

91 SURGICAL APPROACHES TO THE KNEE JOINT (1951)---$3.00

Color, sound, 1303 feet, showing time 36 minutes. Prepared by LeRoy Abbott, University of California, for the Veterans Administration.

The approaches used in the film are the median parapatellar, the approach for the excision of the medical meniscus, the approach to the lateral compartment of the knee, and an especially well shown dissection of the popliteal space and the posterior knee compartment.

92 SURGICAL APPROACHES TO THE SCAPULOHUMERAL JOINT (1949)---$3.00

Color, sound, 1250 feet, showing time 30 minutes. Prepared by LeRoy Abbott, University of California, for the Veterans Administration.

A combination of anatomic demonstration, animated drawings and operating room technique. The various approaches are first shown by anatomic dissection, then retraced by animated drawings and finally depicted by filming of actual surgical operations.

116 SURGICAL APPROACHES TO THE SPINE AND SACROILIAC (1953)---$3.00

Color, sound, 994 feet, showing time 27 minutes. Prepared by LeRoy Abbott, University of California for the Veterans Administration.

A cadaver is used to demonstrate the surgical approach to the joint and a diagram is used to clarify the steps in the procedure. Approach to the lumbar aspect of the spine is illustrated by an operation on a cadaver. Recapitulation in animation clarifies the steps in the procedure.

PHYSICAL MEDICINE

8 CONTRACTION OF ARTERIES AND ARTERIOVENOUS ANASTOMOSES (1935)---$1.00

Silent, 250 feet, showing time 10 minutes. Pre-

pared by Dr. E. R. Clark, University of Pennsylvania School of Medicine, Philadelphia.

This film visualizes the contraction of arteries and arteriovenous anastomoses as seen through a glass chamber installed in a rabbit's ear.

34 RADIOTHERAPY: HIGH DOSAGE TREATMENT (1945) $2.00

Sound, 599 feet, showing time 15 minutes. Prepared by the United States Office of Education, Washington, D.C.

Illustrates the uses of x-rays and radium in the treatment of cancer.

109 RECORDING OXIMETERS AND THEIR APPLICATIONS (1953) $2.00

Color, sound, 530 feet, showing time 15 minutes. Prepared by John F. Perkins, Jr., M.D. and William E. Adams, M.D., University of Chicago School of Medicine.

This film outlines briefly the principles of operation of ear oximeters, advantages of recording type oximeters over galvanometer types, uses of oximeters in teaching physiology of respiration, in pulmonary functions studies, in thoracic surgery and in post-operative oxygen therapy.

OTHER SUBJECTS

135 THE CASE OF THE DOUBTING DOCTOR (1956) ..... no service charge

Color, sound, 1060 feet, showing time 30 minutes. Produced by Centron for the American Medical Association.

A newspaper editor golfing with three local physicians discovers an interesting story while listening to a debate on the merits of the A.M.A. and medical societies. The "doubting" doctor, prompted by a bet, sets out to prove his criticisms. Instead, he finds himself taking his first good look at A.M.A. activities which benefit both the physician and the public. Emphasis is not only upon A.M.A.'s activities but also upon the activities of the state and county medical societies.

30 PHYSICAL DIAGNOSIS (A PRESENTATION OF ADVANCED AND UNUSUAL CASES WITH PHYSICAL SIGNS DEMONSTRABLE BY INSPECTION)

Color, silent, (17 reels), (1942 revised 1945). Prepared by Dr. Gordon B. Myers, Dr. Fred J. Margolis and Dr. Muir Clapper, Wayne University College of Medicine, Detroit. Following are the titles and the approximate showing time of each reel:

Reel I. Abnormalities in Gait $1.00
396 feet, showing time 16 minutes.

Reel II Other Types of Involuntary Movement $1.00
330 feet, showing time 13 minutes.

Reels III and IV. Endocrine Diseases with Characteristic Physiognomy $2.00
733 feet, showing time 30 minutes.

Reel V. Abnormalities in Color and General Diseases with Skin Manifestations $1.00
465 feet, showing time 19 minutes.

Reels VI, VII and VIII. Head and Face $3.00
1,300 feet, showing time 54 minutes.

Reel IX. Neck $1.00
365 feet, showing time 15 minutes.

Reels X and XI. Chest $2.00
619 feet, showing time 26 minutes.

Reel XII. Displacement of the Apical Impulse, 307 feet, showing time 12 minutes $1.00

Reels XIII and XIV. Abdomen, Back and Perineum $2.00
738 feet, showing time 26 minutes.

Reels XV, XVI and XVII. Extremities $3.00
916 feet, showing time 38 minutes.

Requests for this film should be submitted in sections according to subject.

64 SIGMOID, RECTUM AND ANAL CANAL ENDOSCOPIC VIEWS. (Revised 1950) (Formerly titled PROTOSCOPIC CINEMATOGRAPHY $2.00

Color, silent, 1000 feet, showing time 28 minutes. Prepared by J. Peerman Nesselrod, M.D. and Jay M. Garner, M.D.

Demonstrates protoscopic views of various rectal and colonic diseases as well as the normal bowel mucosa.

Other Sources Available

The Oklahoma State Medical Association also maintains a source list on a great variety of medical films which are not available through the A.M.A. Requests for information on film subjects not listed on these pages should be made to the O.S.M.A. Executive Office.

Progress Report Traces Medicare's First 6 Months

Fiscal operations of military dependents' medical care program ("Medicare") from its inception last December to July 1, 1957, are traced in interim progress report which has been submitted to Congress. Total of hospital claims up to that date was 103,595, for $10,732,272; in same period, physicians' claims totaled 127,902 for $8,805,128. Air Force dependents account for 40 per cent of total Medicare load; Navy, 32 per cent; Army, 26 per cent, and U. S. Public Health Service the remainder.

25 YEARS AGO

EDITORIAL

The Progress of Cancer Research and Treatment in the Past Seventeen Years

"Doctor Joseph Colt Bloodgood has recently issued a lengthy statement covering various phases of cancer work since 1915. In a letter accompanying the statement he makes the following statement: *"In regard to cancer,*—in view of the fact that its earliest stages in the skin, mouth, and cervix are curable by the proper application of small amounts of radium, all agencies must unite in seeing that properly trained radiologists are supplied to every clinic using these small amounts of radium."

Doctor Bloodgood notes that in 1915, when he was asked to address the Academy of Medicine in San Fransciso on cancer research activities throughout the world, there was so few cancer research workers that it was no trouble to write almost every one of them and go over the chief literature of their experimental work. The following is especially noted among the various stages and activities occurring in 1915. Cancer throughout the world was largely a disease which could be recognized clinically and from its gross pathology. In spite of the great advances made in the microscopic study of the cellular pathology of tumors since Muller, Virchow, and Cohnheim, the miscroscope was not often used in the operating room to make a diagnosis from Frozen section. In all the operating rooms of the best clinics throughout the world the clinical and gross diagnosis of the operating surgeon was checked with the microscope in the pathological laboratory, and this material is still available for restudy and has been and is being restudied in a large number of clinics. At that time a small number of the medical profession had begun to appreciate the possible value of X-rays and radium in the treatment of cancer. In 1913 the American Society for the Control of Cancer was organized, but Bloodgood believes it is safe to say that the principles of the surgical treatment of cancer were pretty well established by 1895, thirty-seven years ago; deep X-ray and radium treatment between 1915 and 1920. The education of the public has been more or less continuous for almost nineteen years, therefore we have activities in pathology, in operations, in X-ray diagnosis and treatment, in radium and in education.

Bloodgood notes that less attention has been devoted in time, money, efforts and the daily personal thoughts and actions of the physician and dentist, and in the co-operative effort of all those agencies which have helped, and are helping the medical profession in the primary schools, and this is more important for prevention and cure than all other agencies. The activities in France, in England and in other foreign countries are practically similar to those going on in the United States. He doubts if any one in the United States dies of cancer without the benefit of surgeon, X-rays, or radium, but that the majority are not cured, many not even temporarily relieved because of the lateness of the stage of the disease when the patient sought advice. He has personally studied thousands of histories of patients who sought the advice of the medical profession after they had been warned for some time; he noted the striking fact in those patients, whose malignant disease can be diagnosed clinically, that they have not had a recent diagnostic survey, and the chief cause of delay after they became aware of their symptoms has been ignorance rather than fear.

He concludes that what we need today, in every civilized country, is not so much more radium, or more cancer clinics, but more cases of cancer of the cervix in its early stages; that the majority of obstetricians and gynecologists of today believe that the greatest protection against cancer of the cervix is routine pelvic examinations after the birth of a child. He finds that in this country less than ten per cent of our mothers are so protected.

It is gratifying that he notes that cancer has remained well twenty or more years when the disease involved the skin, lips, oral cavity, larynx, breast, stomach, colon, and malignant tumors of bone and soft parts, this of course in the presence of proper treatment.

One of the chief obstacles to a greater progress today is the feeling among many members of the medical profession in all its departments, that the growth of the health departments—Federal, State, City and County—is really interferring with the practice of medicine in the following ways: Actually curtailing the activities of the medical profession and diminishing their income and influence. In the very few contacts I have made with the general practitioner in the small villages of England, I encountered the same point of view."

Hillcrest Dinner Honors 82 Physicians

An appreciation dinner was held July 12, 1957, honoring the 82 physicians who provided free medical care to 11,703 charity patients at Hillcrest Medical Center's outpatient department for the past year.

The physicians attending were presented certificates of appreciation by Dr. A. Ray Wiley, department director, and Paul E. Taliaferro, president of the board of trustees of the Center which is located in Tulsa.

Coming Meetings

POST GRADUATE COURSE
University of Oklahoma Medical Center
Sept. 11, 1957 3:30 p.m.

HEART FAILURE
First in a series of 10 postgraduate courses.

3:30 PATHOGENESIS OF DYSPNEA IN CONGESTIVE HEART FAILURE
*Richard V. Ebert, M.D.
4:20 PATHOPHYSIOLOGY OF CONGESTIVE FAILURE—Wm. E. Jaques, M.D.
5:10 ELECTROLYTE DISTURBANCES, CONGESTIVE FAILURE—L. L. Conrad, M.D.
5:30 Dinner, Hospital Cafeteria
6:30 STRESS & ELECTROLYTES, RELATIONSHIP TO PATHOGENESIS OF CONGESTIVE FAILURE—William W. Schottsteadt, M.D.
7:15 PANEL: TREATMENT OF CONGESTIVE HEART FAILURE—Digitalis, Diuretic agents, Ancillary measures
Moderator: Robert H. Bayley, M.D.
Paul W. Smith, Ph.D. Melvin L. Clark, M.D.
William O. Smith, M.D.

*Guest Lecturer, Professor and Chairman, Dept. of Medicine, University of Arkansas; Courtesy of Oklahoma State Heart Association

Registration: $3:50 per session; $25 for entire series includes dinner, Hospital Cafeteria

SOUTHWESTERN CANCER CLINIC
September 20 and 21, 1957
Ft. Worth, Texas

The Southwest Regional Cancer Conference will be held September 20 and 21, 1957, in Fort Worth, Texas, with headquarters in the Texas Hotel.

Speakers for the meeting will be: Dr. Mark M. Ravitch, Baltimore; Dr. John D. Reeves, Boston; and Dr. Thomas M. Peery, Washington, D.C.

HILLCREST MEDICAL CENTER
1653 East 12th St., Tulsa, Okla.

Lectures in Basic Science Given by Faculty Members of the University of Oklahoma School of Medicine.

Sept. 24—Recent Advances in Viral Diseases of the respiratory System, L. V. Scott, Lecturer.
Oct. 8—Basic medical psychology, L. J. West, Lecturer.
Oct. 22—Heart Function: cardiac reserve, A. N. Taylor, Lecturer.
Nov. 12—Common Spinal Pathways, G. H. Daron, Lecturer.
Nov. 26—Cerebellar Structures and Function, G. H. Daron, Lecturer.
Dec. 10—Autonomics: Structure and Function, G. H. Daron, Lecturer.
Dec. 17—Central Autonomic Function as related to common medical diseases, C. G. Gunn, Lecturer.

Oklahoma Chapter of the
AMERICAN COLLEGE OF SURGEONS
September 27-28, 1957

A meeting of the Oklahoma Chapter of the American Cillege of Surgeons will be held at the Western Hills Lodge at Sequoyah State Park on September 28 and 29, 1957.

The Scientific Program will consist of the winning papers selected from the Oklahoma Association of House Staff Physicians presented at their annual meeting in May, 1957. The papers which will be presented are as follows:

AN EPIDEMIC OF BREAST ABSCESSES
—Robert W. Dean, M.D., St. Johns Hospital, Tulsa

SPLENECTOMY FOR CONGENITAL HEMOLYTIC ANEMIA
—Robert Jabour, M.D., Hillcrest Medical Center, Tulsa

EXCISION OF INTERNAL CAROTID ANEURYSM EMPLOYING HYPOTHERMIA AND VASCULAR SHUNT—IN PREGNANT WOMEN (PATIENT IN FIRST TRIMESTER OF GESTATION)
—Karl K. Boatman, M.D., Oklahoma City

CHLORPROMAZINE AS A MASKING AGENT IN INTESTINAL OBSTRUCTION
—Duane A. Barnett, M.D., Ponca City

THE FUNCTIONING CARCINOID SYNDROME
—William R. McCabe, M.D., University of Oklahoma Medical Center, Oklahoma City

STUDIES OF POST-PARTUM PITUITARY NECROSES
—Carl Smith. M.D., University of Oklahoma Medical Center, Oklahoma City

For further information write the post graduate office of the Oklahoma Medical Center, 800 N.E. 13th Street, Oklahoma City, Oklahoma.

18th Annual Meeting
THE AMERICAN FRACTURE ASSOCIATION
Hotel Cortez El Paso, Texas
September 30, October 1 and 2, 1957

The program for the 18th Annual Meeting of the American Fracture Association will consist of round-table luncheons, scientific sesisons to which those attending are invited to bring their own X-rays and present problem cases, and planned social hours. Also many scientific and commercial exhibits will be presented.

A.M.A. Council on Foods and Nutrition
NUTRITION IN PREGNANCY SYMPOSIUM
University of Missouri Medical Center
Columbia, Missouri
Friday, October 11, 1957

This meeting will provide an excellent opportunity for the physician and members of the allied professions to acquaint themselves with current findings in nutrition and the practical application of these findings to the management of obstetrical patients.

A copy of the program may be obtained by writing: Philip L. White, Sc. D., Secretary, Council on Foods and Nutrition, The American Medical Association, 535 North Dearborn St., Chicago 10, Illinois.

Grayson County Medical Society's Second
BLACKFORD MEMORIAL LECTURESHIP
Denison, Texas
November 5, 1957

Guest speakers for the second Blackford Memorial Lectureship will be Dr. Conrad G. Collins, Professor of Obstetrics and Gynecology, New Orleans, Louisiana; Dr. J. R. Maxfield, Jr., Radiologist, Dallas, Texas; Dr. C. M. Pomerat, Anatomist, Galveston, Texas; and Dr. Edgar J. Poth, Professor of Surgery, Galveston, Texas.

AMERICAN COLLEGE OF SURGEONS
Sectional Meeting
Statler Hilton Hotel Dallas, Texas
JANUARY 9-11, 1958

Dr. Frank H. Kidd, Jr., and a Committee of Dallas Surgeons have planned a well-balanced program of interest to general surgeons as well as surgical specialists. Subjects range from Chemopallidectomy for Parkinson's Disease to Bomb Pheonomenology.

All members of the medical profession are invited to attend.

Sectional meetings of the American College of Surgeons draw on surgeons of outstanding ability to discuss problems encountered in daily practice, and to disseminate information about new techniques. Usefulness is the keynote to all College programs, which are planned by local committees answering the needs of doctors within the meeting area. Panels, symposia, papers, medical motion pictures, and question and answer periods characterize the meetings.

Two new features are scheduled for each Sectional Meeting this year: a Fellowship Luncheon, at which a panel of College officials will answer questions about the entire program of College activities, and in turn, pose questions to the audience; and a social, rather than scientific, dinner meeting to which program participants, visiting surgeons, wives and other guests are cordially invited for an informal and pleasant evening of entertainment.

Dr. Idstrom To Be Speaker For X-Ray Technicians Meeting

Dr. L. G. Idstrom, associate radiologist at the Swedish Hospital in Minneapolis, Minnesota, will be the guest speaker for the 11th Annual Convention of the Oklahoma Society of X-Ray Technicians which will be held November 2 and 3, 1957, at the Skirvin Hotel in Oklahoma City.

Doctor Idstrom is well known to the American College of Radiology and the American Society of X-ray Technicians for in 1944 he received his fellowship from the American Board of Radiology and at the present time is a member of the Advisory Committee of the American Society of X-ray Technicians, appointed by the Board of Chancellors, American College of Radiology.

As an interesting and educational hobby, Doctor Idstrom has obtained tape recordings of famous scientists from all over the world in an attempt to get a permanent record of the speaking voices of men who are "famous firsts" in the field of X-ray and atomic energy.

In addition Doctor Idstrom also develops equipment for demonstration purposes. On his visit to Oklahoma, he plans to bring his entirely visual and almost completely automatic electronic teaching model of an X-ray machine.

O.U. Alumni Schedule 5-Year Class Reunions

Every five years, the Oklahoma University Medical School Alumni Association sponsors and makes arrangements for five year class reunions to be held the day before the Annual Oklahoma City Clinical Society meeting.

The classes which will be holding reunions on Sunday, October 27, 1957, in the Persian Room, Skirvin Tower, Oklahoma City, will be those graduating in 1912, 1917, 1922, 1927, 1932, 1937, 1942, 1947 and 1952.

The five year class reunions will be at the same time and same place as the annual O. U. Medical School Alumni festivities. Special tables for the class reunions will be reserved and honored for the occasion. The wives are invited to the festivities which will include four hours of dancing and special entertainment.

Lee K. Emenhiser, M.D., is Chairman of the Class Reunion Committee.

PHYSICIAN PLACEMENT

Anesthesia

Daniel B. Perry, Residence Quarters, Harlem Hospital, New York, N. Y., age 48, Meharry Medical College, 1948, interned at Harlem Hospital, New York and served residency in anesthesia there, veteran, available December, 1957.

General Practice

David L. Mossman, USAH, Orthopedic Department. Ft. Riley, Kansas, age 28, married, University of Vermont, 1954, available upon separation from service, December, 1957.

Robert R. Rupp, 1235 N. Lorraine, Wichita, Kansas, age 30, married, University of Oklahoma, 1956, internship at Wesley Hospital, Wichita, veteran, available, July 1, 1957.

Internal Medicine

Rensselaer W. M.Clure, Mayo Foundation, Rochester, Minnesota, age 31, married, University of Kansas, 1948, veteran, available July 1, 1957.

Robert W. Datesman, 94 Oak Street, Westwood, Massachusetts, age 30, married, University of Pennsylvania, 1951, residency training at University of Minnesota Hospitals, and Boston Veteran Hospital, Veteran, available in July, 1957.

Joseph A. Ezzo, 3215 Nebraska, St. Louis 18, Missouri, age 32, married, St. Louis University, residency at St. Louis City Hospital and St. Louis University Hospitals, veteran, available, July 1, 1957.

Louis K. McCown, 1516 Third Ave., N.E., Rochester, Minnesota, age 33, married, Tulane, 1949, Residency at Mayo Clinic, Veteran, available January 1, 1958.

Bartis M. Kent, 225 Koser, Iowa City, Iowa, age 32, married, Baylor, 1948. Three year residency at Baylor, veteran, available July, 1958.

Obstetrics-Gynecology

John P. Harrod, Jr., 932 E. 56th Street, Chicago 37, Illinois, age 33, married, University of Georgia, 1946, served residency at University Hospital, Augusta, Ga., Duval County Hospital, Jacksonville, Florida and at Chicago Lyons-In Hospital, Board certified, veteran, availability date unkown.

Pediatrics

Marilynn L. Miles, Kemmerer Bldg. Norton, Virginia, age 36, single, Albany Medical College, 1950, residency at University of Michigan, available immediately.

James A. Dugger, 1510 Southern Ave., Kalamazoo, Michigan, age 35, married, University of Oklahoma, 1946, three years residency in pediatrics, veteran, available September 1, 1957.

Surgery

James Firth Alexander, Charity Hospital, New Orleans, Louisiana, age 34, single, Ohio State, 1949, in orthopedic residency training now, veteran, available immediately.

Karl Edwin Blake, 2681 Crosby Avenue, Pittsburgh 16, Pa., age 33, married, University of Pittsburgh, 1948, residency at VA Hospital and Children's Hospital, Pittsburgh, Board Eligible, veteran, available May, 1957.

Urology

John C. Brazos, 406 South Washington, Watertown, Wisconsin, age 36, married, University of Illinois, 1949, interned at Anckee County Hospital, St. Paul, Minnesota, residency at Milwaukee County Hospital, Milwaukee, Wisconsin. Veteran, available upon completion of residency, July 31, 1957.

CLASSIFIED ADS

OFFICE SPACE for lease. Ten rooms, two lavatories, private parking, air conditioned, ground floor. Will rent half or lease all. 1225 North Walker or call FOrest 5-4842 or TR 8-3311.

FOR SALE: Complete office equipment and furniture, including x-ray and bucky (2 yr. old) for General Practitioner. May be bought on easy terms. Excellent opportunity for practice in town of 4,500. Long term lease on desirable office space available at low rent. If interested write for complete invoice of equipment, and details of opening for practice. R. O. Smith, M.D., 306 N. Willow, Fayetteville, Arkansas.

FOR SALE: Physician's instruments and office equipment. Mrs. Melvin Fry, 2007 S.W. 15, Oklahoma City, Okla. Phone CEntral 2-9284.

WANTED General Practitioner to give anesthetic in private clinic. Please advise qualifications in first letter. Box D, c/o THE JOURNAL, P. O. Box 9696, Shartel Station, Oklahoma City, Okla.

FOR SALE: Hamilton steelstone suite; mist green color. Consisting of examining table, treatment cabinet, waste receptacle, and stool. Also miscellaneous instruments for general practice use. All in excellent condition, less than two years old. Quentin T. Brooks, M.D., Western State Hospital, Ft. Supply, Oklahoma.

FOR SALE: Six bed, licensed General Hospital and Clinic, serving two cities, combined population 4000, with large trade area. Write Box B, c/o THE JOURNAL, P.O. Box 9696, Shartel Station, Oklahoma City, Oklahoma.

FOR RENT OR LEASE: Over 2000 square feet of office space for rent or lease; good corner location on Britton Road in Oklahoma City. Plenty of parking space. Building can be remodeled and re-decorated to suit needs and taste of physician. Write Box C, c/o THE JOURNAL, P.O. Box 9696, Shartel Station, Oklahoma City, Oklahoma.

WANTED: General Practitioner. Oklahoma license. Salary open. Family residence and maintenance available at nominal cost. Good setup for recent graduate, retired serviceman, or older man seeking regular hours and less strenuous work. Location adjacent to several recreational areas. Contact Superintendent, Oklahoma State War Veterans Home Facilities, Sulphur, Oklahoma.

Deaths

PORTER W. HOPKINS, M.D.
1880-1957

Porter W. Hopkins, M.D., died August 14, 1957, at his home in Enid.

Doctor Hopkins was born in Ireland, Indiana, on August 6, 1880. He was graduated from the Hospital Medical College in Louisville, Kentucky, in 1907; and moved his practice to Enid in 1919.

Doctor Hopkins was a member and past president of the Garfield-Kingfisher County Medical Society which organization recently presented him a fifty year pin. He was also a member of the Oklahoma State Medical Association, the American Medical Association and the Baptist church.

ARTHUR S. RISSER, M.D.
1877-1957

Arthur S. Risser, M.D. of Blackwell died on July 17, 1957, at the age of eighty years.

Doctor Risser was born July 3, 1877, in Summerfield, Illinois, and was graduated from Kansas City Medical College in 1905. He interned at St. Margaret's hospital in Kansas City and did postgraduate work in surgery at Harvard University, Cambridge, Massachusetts. Doctor Risser was licensed to practice medicine in 1905 in which year he moved to Blackwell where he practiced medicine for fifty-two years.

Doctor Risser was President of the Oklahoma State Medical Association in 1926-27 and was elected to Honorary Membership in the organization in 1956. He served as a lecturer in histology and pathology at the University of Oklahoma School of Medicine and also served as President of the Blue Cross Board of Oklahoma.

EVERY WOMAN

WHO SUFFERS

IN THE

MENOPAUSE

DESERVES

"PREMARIN"

widely used

natural, oral

estrogen

AYERST LABORATORIES
New York, N. Y. • Montreal, Canada
5645

in spasticity of the GI tract

Pavatrine®
125 mg.
with Phenobarbital
15 mg.

- *is an effective dual antispasmodic*
- *combining musculotropic and neurotropic action plus mild central nervous system sedation for "the butterfly stomach."*

dosage: one tablet before each meal and at bedtime.

SEARLE

PHENAPHEN® PLUS

Phenaphen Plus is the physician-requested combination of **Phenaphen**, plus an antihistaminic and a nasal decongestant.

Available on prescription only. Robins

each coated tablet contains: **Phenaphen**	
Phenacetin (3 gr.)	194.0 mg.
Acetylsalicylic Acid (2½ gr.)	162.0 mg.
Phenobarbital (¼ gr.)	16.2 mg.
Hyoscyamine Sulfate	0.031 mg.
plus	
Prophenpyridamine Maleate	12.5 mg.
Phenylephrine Hydrochloride	10.0 mg.